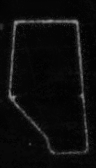
TELECOMMUNICATIONS IN NORTHERN ALBERTA



Alberta

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I. EXECUTIVE SUMMARY

THE STUDY FOCUSSED ON IDENTIFYING NEEDS IN NORTHERN ALBERTA

Telecommunications in Northern Alberta emerged as a topic worthy of review by the Northern Alberta Development Council (NADC) over the past few years largely based on the receipt of several briefs by citizen groups. This study was undertaken to address some of the questions raised by the briefs and to take a broader look at telecommunications needs and directions over the next decade. Specifically, the study had as objectives:

- identify, scope and describe the key telecommunications issues in northern Alberta;
- present options for development, considering northerners' objectives, technology, policy and regulations;
- investigate innovative programs in Alberta and other jurisdictions;
- examine how technology may aid in the next decade of telecommunication in northern Alberta.

Fulfilling these objectives required that we gain a cross section of input from northerners, as well as meeting with the suppliers and regulators of telecommunications. Section II presents a summary of the mechanisms used and the contacts made in completing the study. The results of the survey itself are presented in this report in Section III, and with supporting detail in appendices.

We found the co-operation and the interest of northern Albertans to be high, and are grateful for their support. For example, over 50% of all those who were sent questionnaires returned them, an excellent return given the timing and complexity of the subject matter. From this interest we can form our first conclusion:

> TELECOMMUNICATIONS IN NORTHERN ALBERTA IS IMPORTANT TO THOSE WHO LIVE AND WORK THERE.

DEMANDS IDENTIFIED DURING THE STUDY WERE BALANCED WITH THE ABILITY NOW AND IN THE FUTURE TO SUPPLY SUITABLE TELECOMMUNICATIONS SERVICES

Telecommunications technology is at once complex and yet very familiar to us all. Watching an event as it happens in another part of the world has become commonplace. And telephone service has certainly progressed from the days of Alexander Graham Bell. Yet, a challenge remains.

WHAT TELECOMMUNICATIONS SERVICES AND FACILITIES EXIST TO MEET THE DEMANDS OF NORTHERN ALBERTANS?

To address this question we approached the current suppliers and regulators of telecommunications, both in northern Alberta and elsewhere in North America. We sought trends in technology and regulations. We looked for innovative services that might be available in other jurisdictions.

Overall, we developed a picture of telecommunications that suggests a second conclusion:

> TELECOMMUNICATIONS TECHNOLOGY IS AVAILABLE TO MEET MOST DEMANDS, BUT REGULATIONS AND ECONOMICS MUST BE ACCOMMODATED.

RESULTS CONFIRM THAT NORTHERN ALBERTA IS A DIVERSE COMMUNITY THAT REQUIRES SPECIFIC SOLUTIONS

While there are many common interests evidenced in the study, there are also a wide range of needs and concerns. Plotting a course that recognizes this diversity will be a challenge yet one which we feel the data in this report can readily support.

THE REPORT OUTLINES OUR MAJOR FINDINGS AND SUGGESTS A CONTEXT FOR ACTION IN THE COMING YEARS

The report outlines the findings from the survey regarding the demand for and supply of telecommunications services in northern Alberta, and the issues that arise; the options available for development in northern Alberta; and a suggested focus for the future. Together these sections represent the input of a great many interested persons, and provide an exciting topic for discussion.

THERE IS A MAJOR NEED TO IMPROVE THE FOCUS OF PLANNING AND DELIVERY OF NEEDS FROM A NORTHERN PERSPECTIVE

It would appear that there is a need to organize and focus the discussion and fulfilment of needs from some other basis than a community by community basis. Each community has individual concerns, but many are very consistent and in order to meet the needs of economics and policy their interests should be joined together. Current organizations do not appear to facilitate this, but perhaps some form of Standing Committee of interested groups could well serve this planning and development role.

THE NEEDS FOR TELECOMMUNICATIONS CAN BE BROKEN INTO THREE GROUPS: SATISFACTORY AS IS; CONTINUED IMPROVEMENT TO SERVICES; AND INNOVATIVE APPROACHES

The needs in northern Alberta for telecommunications services can be broken into three groups: those not needing major improvement; those needing to increase the scope or modify existing services; and those that suggest the need for new services or substantial enhancements or innovations. Mobile telephone and telex service fall into the first category, current services being deemed adequate and not in need of further development.

SERVICES NEEDING CONTINUED IMPROVEMENT

The services requiring continued improvement include television, radio and telephone. These are all viewed as in need of some improvement as summarized below:

TELEVISION
- Increased number of stations;
- Increased Canadian and U.S. coverage;
- Increased Educational coverage (e.g. PBS)
- Increased Family programming.

RADIO
- Increased FM coverage;
- Increased AM coverage (and selection);
- Increased access to local (Canadian) news.

TELEPHONE
- Lower Long Distance calling charges;
- Greater coverage by Extended Flat Rate Calling (EFRC);
- Improved 911 service;
- Increased access to individual line service (I.L.S.).

We suggest that the existing regulatory and delivery agencies are legitimately and keenly interested in meeting these needs. However, to meet the needs of northern Alberta they must be presented a more focussed picture of the needs. Consequently, we recommend:

A STANDING COMMITTEE BE FORMED TO CO-ORDINATE THE ONGOING FULFILLMENT OF THE IDENTIFIED NEEDS IN EXISTING SERVICE AREAS.

THERE IS A NEED FOR AN INNOVATIVE APPROACH TO CAPITALIZE ON DISTANCE EDUCATION AND OTHER TELECOMMUNICATIONS SERVICES

The report identifies a weakness in the area of "awareness" by northern Albertans as to what Distance Education is, and how it might be of service to them. As well, we identify that there are quite a number of groups interested in Distance Education whose efforts are not viewed as co-ordinated, perhaps due to lack of knowledge of the observers. Yet, we can readily see why having access to high quality education quickly and cheaply would be a benefit, for everything from children's education to communicating on current business issues. We therefore recommend:

> N.A.D.C. WORK WITH THE VARIOUS GROUPS INVOLVED WITH DISTANCE EDUCATION TO FORMULATE A PROGRAM TO IDENTIFY SPECIFIC NORTHERN NEEDS AND THEN TO CO-ORDINATE EFFORTS AS A GROUP TO DEVELOP THE REQUIRED DELIVERY MECHANISMS.

Coupled with this need for improved understanding of Distance Education and its co-ordinated delivery, we also see an opportunity to use the distances in northern Alberta as an advantage: by focusing on innovative ways to utilize the services to increase small business effectiveness. We refer to this as the TELECOMMUNICATIONS SERVICES INCUBATOR FOR SMALL BUSINESS, to draw an analogy with new business start-ups. The principles of the incubator approach would be as follows:

- a pilot project to search for ways of delivering improved business effectiveness through telecommunications;

- specific applications could include:
  - Management Assistance Program for small business (e.g. consulting advice, training of businessmen) via teleconferencing;
  - use of Computer Timesharing to move inventory information between suppliers;
  - use of computers for conferencing on economic and social issues of importance;
  - use of two way satellite communications for interactive access to data bases such as Alberta Agriculture. This might also apply to two-way communications regarding course material for distance education.

Given the proper focus and leadership, we believe the use of Distance Education and a Telecommunications Services Incubator project could have significant positive impacts on northern Alberta.

II. OVERVIEW OF THE STUDY APPROACH

Examination of the need for telecommunications in northern Alberta required careful consideration of a number of elements:

- the varied interest groups;
- the wide geographic distribution of population;
- the variety of business interests.

To fulfill this data collection need, W.J. Page & Associates Ltd. undertook a careful and full analysis of the elements that must be considered to present a fair representation of the northern needs. The results of our efforts were greatly aided by the input of our client, the Northern Alberta Development Council (NADC), and the Consultation Group, described below:

Gerry Archibald, Northern Alberta Development Council, Peace River
Cynthia Buie, High Prairie Regional Economic Development Council, High Prairie
Bert Crowfoot, Aboriginal Multi-Media Society of Alberta, Edmonton
Rae Dolemo, Mayor, Town of Hythe
Ray Fox, Aboriginal Multi-Media Society of Alberta, Edmonton
John Leskiw, Improvement District Manager, Alberta Municipal Affairs, Lac La Biche
Ken Murricane, Alberta Technology, Research and Telecommunications, Edmonton
Paul Nedza, Athabasca University, Athabasca
Bruce Paterson, Alberta Government Telephones, Edmonton
Michael Plumb, ACCESS, Edmonton
Hugh Seaton, Project Manager, Northern Alberta Development Council, Peace River

We were able to achieve a very representative input profile as is described below:

- 225 mail-out questionnaires distributed;
- 112 responses;
- 30 telephone interviews to supplement questionnaire data;
- 20 personal interviews;
- visits with 10 regulatory officials;
- rural and urban community visits.

We supplemented the information on northern Alberta with some very interesting telephone discussions with other jurisdictions, including:

- State of Alaska;
- T.V. Ontario;
- Center for Telecommunications, University of Texas

We also applied prior knowledge we had on other jurisdictions, including T.V. Ontario and the Knowledge Network, British Columbia.

We were extremely pleased to find that participants were interested, and generous in their time allocation to support our efforts. We would suggest that, given the desire to have a symposium on this topic area, that a number of the contributors (see our contact list in the appendix) should be kept in mind as potential participants. We should also note that a detailed printout of results are available in the appendices. The questionnaire itself is contained in the working papers provided to the N.A.D.C.

The next sections outline the demands and needs as identified by northern Albertans, the ability to supply these needs, some options for future developments, and a suggested direction.

III. DEMAND AND SUPPLY - THE NEEDS AND ISSUES

Our findings reflect the feelings and needs of northern Albertans. We believe that an objective review of the following sections provide interesting insights into the opportunities and challenges of telecommunications.

The findings are presented by topic area (i.e. television, telephone, radio, distance education, telex and mobile radio). More detailed results of actual questionnaires are presented in the appendices.

Each of the topic areas presents the demands as identified in the questionnaires and as validated by interviews, followed by an overview of the technological and regulatory factors affecting the area. We then present the Key Issues for each of the topic areas.

We would like to emphasize that the individual comments made on the questionnaires are of utmost interest and importance in understanding the "flavour" of the study. Consequently, we have included these in the appendix as part of the questionnaire summaries. The questions number is quoted to guide the reader.

Some general comments are necessary prior to moving into reviewing each topic area. These will assist the reader in interpreting the data by being familiar with how it was obtained.

First, we describe below the general characteristics of the respondents to the questionnaire:

	% OF REPLIES	
Language spoken:	76	English
	4	Cree
	6	French
	14	No Replies

	RECEIVED	SENT	
Interest groups:	5	30	Chamber of Commerce
	26	42	Municipal Administrators/ Secretaries
	6	21	I. D. Managers
	3	9	Chairman, Metis Settlements
	2	25	Chiefs, Indian Bands
	0	9	Presidents, Isolated Community Assoc.
	17	20	Director, Family & Community Support Services

6	23	Administration - Hospital
14	28	Support, School Divisions
4	4	Chief Engineer, Companies
17	25	Other

The respondents represented a wide range of agencies and interest groups, reflecting the spectrum of northern Alberta.

The priority held by the survey participants for each of the telecommunications services reviewed varied quite extensively. We have ranked in the table below the priority of each service against the other. The marking was derived by weighting the responses for Question #1-3a of the questionnaire (see Appendix A) which asked participants to rank the services from one to six in terms of need for improvement. The ranking is done on an index of ten (10). The greatest response (e.g. television) becomes the figure against which all others are compared. Therefore Radio's index rate is calculated as follows:

$$\frac{\text{RADIO RESPONSE RATE}}{\text{TELEVISION RESPONSE RATE}} \times 10 = \text{INDEX}$$

RANKING OF PRIORITY FOR SERVICES

	% With Service	Priority For Improvement (Maximum 100)	Index of 10
Television (% with T.V.'s)	94	100	10.0
Radio (% with Radios)	94	81	8.1
Telephone (Residence)	98	70	7.0
Distance Education	17	51	5.1
Mobile Telephone	81	37	3.7
Telex	55	13	1.3

The next sections present findings by topic area.

A. TELEVISION

A.1 Demand

The results of our review clearly indicate that there is a consistent desire and need for improved television coverage in northern Alberta.

The following data outline the characteristics of television use and demand in northern Alberta (percentages are calculated based on total responses). Questionnaires without replies are not included to calculate percentages, unless specified. The questionnaire summary data is provided in section three of Appendix A.

% Owning Televisions: 98

Primary Uses Index (10.0 indicates maximum use reported)

Entertainment	10.0
Information	9.7
Education - Adult	3.7
Education - Child	3.2
To Keep Me Company	1.0
Handicapped	0.2
Don't Watch T.V.	0.1

% With These Stations:

CBC	92
CTV	78
ITV	53
CBS	39
ABC	38
ACCESS	35
NBC	34
No U.S. Stations	31
First Choice	31
TSN	22
PBS	21

RELATIVE PRIORITY FOR INDEX FOR IMPROVEMENT (10.0 IS MAXIMUM)

Educational Programs	10.0
Lower Cable Service Cost	6.7
Number of U.S. Stations	6.0
Lower Reception Cost	4.4
Local Community Programming	4.1
Number of Canadian Stations	1.6
Number of French Stations	1.0
Mother Tongue Programming	0.7

WILLING TO PAY FOR IMPROVEMENT:

	% of Reply
$ 0	22
$ 1 - 5	10
$ 6 -10	7
$11 -20	7
NOT INDICATED	53

It is important to note that the chart for "relative priority for improvement" was based on an analogy of "if you had $100 to spend, where would you spend it?" It is particularly relevant to review this priority in light of the comments on the next page, and as outlined in detail in the appendix. In short, we see a very close parallel between the priorities for improvement and the services that are currently least available.

A.1.1 KEY DEMANDS FOR TELEVISION AS EXPRESSED BY PARTICIPANTS

Television is the single largest concern amongst our survey participants.

More channels are desired in most locations. Most often these would be U.S. stations, as coverage via CBC and CTV is quite complete.

Improvement in the quality of reception was desired in most locations. Mechanisms suggested included cable and ground receiving and rebroadcast systems.

Canadian stations are desired for news coverage particularly in areas that only receive U.S. services. CBC or CTV from Edmonton would be preferred.

Television is primarily used for entertainment and information. Educational uses are a distant third. [this is discussed further under Distance Education in Section D].

Participants appeared to be more willing to spend dollars to improve television, than on any other service including radio or telephone.

Most locations can receive CBC. This is followed (for Canadian services) by CTV and ITV. American services are primarily CBS, followed by ABC, NBC, and PBS.

Participants want at least one Canadian and one American service. The Canadian service would be used to be informed of what is going on in the country. The American service would serve broader entertainment requirements.

There is no firm understanding of how television distribution works: regulatory nor technically. But people do know what they want.

A.1.2 SPECIFIC IMPROVEMENTS SEEN AS DESIREABLE BY PARTICIPANTS

Several specific improvements were suggested by the participants. These include the following, presented by the area of interest:

Re Entertainment:

- increase Canadian content
- decrease Canadian content!
- increase children/family viewing (PBS type)
- more movies and mini-series

Re Information:

- increase Canadian news coverage
- increase PBS access, more documentaries
- more local and northern news

Re Education:

- increase education services for children
- increase education programs (general) for adults.

A.1.3 SUGGESTIONS ON HOW TO MAKE IMPROVEMENTS

Survey participants had a number of suggestions on how to improve television delivery. These include the following summary points:

Delete local and Canadian content requirements.

Increase competition and have fewer licensing requirements.

Increase access to satellites.

Have provincial government pick up additional costs.

Provide town owned cable service or eliminate the present company's license.

A.2 TECHNOLOGY AND REGULATORY OVERVIEW

This section will present a profile of the current television services. This will be followed by a description of the parties involved and a comment on the technology and regulatory outlook for the future.

Coupled with the demands of the prior section, we can

then focus in Section A.3 on the key issues facing television in northern Alberta.

As a point of information, each topic area will follow this same format and we will not be reproducing these introductory comments in each one.

A.2.1 BASIC SERVICES PROVIDED CURRENTLY

Television can be delivered in the north via a number of mechanisms (microwave, satellite and "off air", i.e. normal broadcasting and retransmission).

The primary delivery mechanisms are broadcast with retransmission (e.g. CBC and CTV Edmonton) and microwave service (AGT) to cable facilities. Within some communities, television is received via satellite through "dishes" and redistributed to individual homes and other users through either low power rebroadcast towers or cable networks, the latter normally limited to higher population areas. Of course, some individuals have their own receiving dishes.

Since January 1986 American services have begun to "scramble" their signals. By mid-year, all major U.S. services are expected to follow suit. Without authorized decoding equipment, this will in effect eliminate American services from "free" receipt and redistribution.

Cable redistribution should be noted as a high-cost alternative, compared to low power (5 to 10 watts) rebroadcast facilities for a limited number of signals and sparse distribution of population.

Municipalities may be licensed to deliver scrambled TV (STV) or cable services. Also, some not-for-profit community organizations, e.g. Manning Sports Center, are allowed to apply to distribute rebroadcast services.

CANCOM provides television channels and FM as a commercial service in the north.

A.2.2 PARTIES INVOLVED

The following agencies and major groups are involved in regulation and delivery of television services in northern Alberta.

Canadian Radio and Television Commission (CRTC)
Canadian Broadcast Corporation (CBC)
Department of Communications, Canada
Alberta Government: Public Utilities Board
Private Broadcasters (CANCOM, CTV, ITV)

Entrepreneurs (cable companies)
Community Distribution Services
Educational Broadcaster (ACCESS)
Alberta Government Telephones (AGT)
U. S. Satellite sources

A.2.3 TECHNOLOGY AND REGULATORY OUTLOOK

In at least two other provinces with similar "northern profiles" to Alberta, B.C. and Ontario, aggressive steps have been taken to utilize satellite coupled with low power rebroadcast towers to give "complete" coverage. This appears to be effective technically, however it has been done primarily for educational channels, being driven by the Knowledge Network and TV Ontario respectively.

Current indications are that private services such as Home Box Office will be "scrambled" and largely unavailable in coming years. Whether major network services e.g. CBS will also follow suit is questionable, but it could happen and would require heavier reliance on "commercial services" versus "free" ground services.

Technology exists that will allow all communities to receive any number of channels. However, regulatory controls are a first hurdle to overcome for authorized redistribution of private signals; and secondly, costs of rebroadcasting and the ongoing servicing of same are such that a funding proposal may have to be developed. For example, a simple low power rebroadcast facility for a single community will cost at least $30,000 (providing facilities for two channels). Some opportunity may exist to co-ordinate this with distance education requirements (see Section D).

It is unlikely, in our view, that northern communities should expect to obtain a separate and different regulatory environment than the rest of Canada.

A.3 KEY ISSUES FOR TELEVISION

How can the need for more channels, of a mixed blend, be met in light of regulatory (legal) and economic requirements for local accessibility?

Where is the focus for delivering television services and for considering the planning steps that need to be taken?

What will the impact of scrambling be on the unlicensed receipt of television services that currently exist?

How does the area of television interface with the area of Distance Education (see a later section)?

B. RADIO

B.1 Demand

Radio, in particular FM, is the second most requested need in northern Alberta.

The following data outline the characteristics of radio use in northern Alberta (see Section IV, Questionnaire Summary).

% Owning Radio	100
- AM	100
- FM	73
- SHORT WAVE	18

% With Stations (cable and broadcast):

CBC-AM	66
CHED-AM	47
CBC-FM	40
ACCESS	36
CKYL	31
CFGP	28
CJXX	22
CKRA-FM	11

Index of Primary Uses (10 indicates maximum use reported)

Information	10.0
Entertainment	8.3
To keep me company	2.4
Education - Adult	2.4
Education - Child	1.2
Handicapped	0.1
Don't Listen To Radio	0.0

Index of Relative Priority For Improvement (10 is Maximum)

Number of FM Channels	10.0
Number of AM Channels	2.7
Local Community Broadcast	2.7
Reduce Cost of Receiving	2.2
Educational Programming	1.6
Programming in Mother Tongue	1.1

Amount Prepared to Spend For Additional Services

	% Reply
$0 (or no answer)	43
$1 - 5	26
$6 - 10	8
$11 - 20	2
No Answer	21

Radio coverage and ownership in northern Alberta could be supplemented by improvements in FM broadcast reception, and general access to increased numbers of stations.

B.1.1 KEY DEMANDS FOR RADIO AS EXPRESSED BY PARTICIPANTS

There appears to be widespread desire for but unavailability of FM.

Radio provides information first, and entertainment second.

The majority of people appear to be unwilling to pay to improve services. 36% were prepared to pay something, the majority wishing to pay $1-5 per month extra.

AM coverage is spotty, although most areas pick up some stations. Improvement is desirable.

Community radio was not a strong requirement, perhaps because it is perceived as a great deal of work to start and maintain.

CBC's northern shortwave radio service was not mentioned by anyone, although 18% of participants had shortwave radios.

B.1.2 SPECIFIC IMPROVEMENTS SEEN AS DESIREABLE BY PARTICIPANTS

Some of the improvements most frequently suggested by the participants included the following (details are provided in the appendix):

Quality FM contemporary music station.

Improve range of Edmonton stations.

Reduce "clutter" of AM stations at night (improve reception).

Establish local stations.

B.1.3 SUGGESTIONS ON HOW TO MAKE IMPROVEMENTS

Survey participants suggested some ways that improvements in radio could be made. These are provided in Appendix A.

B.2 TECHNOLOGY AND REGULATORY OVERVIEW

B.2.1 BASIC SERVICES PROVIDED CURRENTLY

There are several mechanisms used to deliver radio signals to northern Alberta including standard broadcasting of AM signals (both locally and from many other locations), shortwave transmission (e.g. CBC North), and FM transmission by microwave or satellite to be then carried by cable distribution.

B.2.2 PARTIES INVOLVED

The following agencies and major groups are involved in regulation and delivery of radio services in northern Alberta.

Canadian Radio and Television Commission (CRTC)
Canadian Broadcast Corporation
Department of Communications, Canada
Private Broadcasters
Entrepreneurs (cable companies)
Community Groups
Educational Broadcaster (ACCESS)
Alberta Government Telephones (AGT)
Aboriginal Multi Media Society of Alberta (AMMSA)

B.2.3 TECHNOLOGY AND REGULATORY OUTLOOK

Several persons were so unfamiliar with FM that they really did not know what it was. However, they certainly would be able to use it if it was available.

Telephone facilities can be used to deliver radio e.g. microwave transmission. However, costs increase with distance to a point where it is uneconomic.

Often radio signals are carried along with television signals, particularly via satellite transmission. This is done in northern Alberta now, and will likely increase in the future.

B.3 ISSUES

How can radio (particularly FM) be effectively distributed across northern Alberta, at little cost?

C. TELEPHONE

C.1 DEMAND

Telephone services are in great demand, and are widely used. Emphasis for the future is on lowering long distance charges.

The following data outlines the characteristics of telephone use and demand in northern Alberta (see Section II, Appendix A).

% Having Access To Telephone	
At Home	96
At Work	100

Why No Residence Phone? (3 Responses): Too Expensive

Index of Primary Uses (10 indicates maximum use reported)

Social Reasons	10.0
Business	9.2
Emergency	8.4
Convenience	7.9
Family Reasons	7.3
Computer	1.0
Other Reasons	0.4
Distance Education	0.2

Type of Telephone Service Provided	% Reply
Individual Line	67
Four Party Line	10
Do not know	23

Index of Relative Priority For Improvement (10 is Maximum)

Lower Long Distance Charges	10.0
Larger Flat Rate Calling Area	7.0
Lower Monthly Cost	2.5
Fewer Parties on Line (eg: I.L.S.)	2.4
Emergency Service Improvement	2.6
Computer Service	2.0
Lower Installation Charges	1.8

Amount Prepared To Pay For Improved Services	
$ 0	27
$ 1 - 5	9
$ 6 - 10	7
$11 - 20	2
Not Indicated	55

% Served By R.I.T.E. (Government Lines)	
Yes	62
No	15
Do Not Know or No Answer	21

From the foregoing charts it is obvious that telephone is a key component in northern Alberta individual, community, and business affairs. The great majority of persons do not wish to pay more for the service, and generally would like to see costs lowered.

C.1.1 KEY DEMANDS FOR TELEPHONE AS EXPRESSED BY PARTICIPANTS

Increased toll free local calling (EFRC) is desired by almost all participants.

Long distance charges are felt to be higher than necessary, given the fact that distances are inevitable in the north. The thought was expressed that telephone calling should be increasingly subsidized in the north (to a greater degree more than currently).

There was a strong demand (given our sample size) amongst multiple party line users to have individual line service (I.L.S.). This demand was expressed most strongly in the section of the questionnaire where open ended comments were solicited.

If the survey sample had included more actual multi-line users, it is quite certain that there would also have been a greater demand for increased I.L.S.

Residential telephones are used (in order of priority) for social, business, emergency, and family purposes.

"911" service could be improved: access, cost.

There is a perception that long distance costs are higher in the north than in the south. This is true to the extent that distance is a factor in the rate calculation, but it seems the concern might be more directly related to "not knowing" what the actual rates are.

C.1.2 SPECIFIC IMPROVEMENTS SEEN AS DESIRABLE BY PARTICIPANTS

A number of comments and suggestions were made by participants. These are included in Section II, Appendix A.

C.1.3 SUGGESTIONS ON HOW TO MAKE IMPROVEMENTS

A number of comments and suggestions were made by participants. These are included in Section II, Appendix A.

C.2 TECHNOLOGY AND REGULATORY OVERVIEW

C.2.1 BASIC SERVICES PROVIDED CURRENTLY

Telephone services are delivered through an AGT network that provides services to all communities with over 50 residents.

Some rural residents have party lines, maximum of 4 to a line and an average of 2.8.

Essentially all services that are provided by AGT in southern Alberta are provided in northern Alberta.

C.2.2 PARTIES INVOLVED

The following agencies and major groups are involved in regulation and delivery of telephone services in northern Alberta.

Alberta Government Telephones (AGT)
Alberta Government: Public Utilities Board

C.2.3 TECHNOLOGY AND REGULATORY OUTLOOK

Telephone services continue to evolve particularly in terms of the numbers of inter-connect devices that can possibly be used with the telephone. In particular, computer usage of telephone lines continues to increase.

Use of party lines for computer tie-ins have been a problem and continue to be so. There are facilities available now within A.G.T. to allow the party line user to monitor whether someone else wishes to get on the line, thereby closing off their computer use without annoying or inconveniencing anyone. Continued enhancement of this type of device might be desireable.

In populated areas, fibre-optics are replacing copper wiring for telephone lines. This provides the ability to transmit large quantities of data using very little space, and at low costs. Unfortunately this new technology does not lower the costs of line installation, and for single line service is uneconomic. Its immediate potential in the north appears to be limited to the larger centres.

AGT continues to evaluate and develop new and improved technology for increased service and lower costs. This trend should continue for the next decade.

C.3 KEY ISSUES FOR TELEPHONE

Can long distance charges be lowered?

Can Extended Flat Rate Calling (EFRC) be extended to more communities through the expansion of the existing distance limitations or other special arrangements?

Can communications around the rate structures in use in northern Alberta be improved?

Can individual line service be instituted for party line users?

D. DISTANCE EDUCATION

D.1 Demand

There is a lack of precision in the current definition of what Distance Education is, and awareness of who is delivering it for what purpose. But based on our evaluation of the situation, we suggest there is an underlying need for distance education, even though the survey did not identify it.

The following data outline the characteristics of distance education use and demand in northern Alberta (see Section V, Appendix A for questionnaire summary).

Usage of Distance Education In Last 12 Months

	% of Reply
Yes	17
No	77
Not Indicated	6

Persons Having Important Unsatisfied Needs

	% of Reply
Yes	30
No	48
Not Indicated	21

Reasons For Needing Distance Education (question 5-3)

	% of Those Replying
Access To Education Services	44
Continuing Education (keeping skills current)	33
Education (for Business Competition)	23

Courses Taken In Last 12 Months With Tuition Charge

	% of Reply
Yes	19
No	20
Not Indicated	60

To further interpret this data it is important to review the specific comments on demand that are listed in the following sections. As well, we must remember that Distance Education is still unknown to a large group of persons, based on our survey, and as such it was difficult for them to indicate their needs. We shall address this point in our suggestions for future options.

D.1.1 KEY DEMANDS FOR DISTANCE EDUCATION AS EXPRESSED BY PARTICIPANTS

Educators want more distance education.

Non-educators appeared to be uninterested in distance education (or at least ill informed, which we feel to be the case).

Distance Education means "educational TV or enrichment programming e.g. PBS" to some persons, and a wide range of things to others.

Educators would like an Education Rate in telephone tolls (or Department of Alberta Advanced Education subsidy) to improve course accessibility and affordability.

18% of persons surveyed had used Distance Education.

30% of participants had unsatisfied needs, often relating to the continuation of professional upgrading e.g. keeping current with pharmacist training.

Teleconferencing was felt to be "voice only" and the integration to video was largely unknown or not viewed as necessary. The overall response and answers were less clear in this section of the questionnaire. Consequently, demand for this service was unclear.

D.1.2 SPECIFIC IMPROVEMENTS SEEN AS DESIREABLE BY PARTICIPANTS

Specific suggestions for improvements came largely from the "educator" portion of the survey, as others were largely uninformed of what distance education was, and how it might benefit them. Suggestions include the following, with further points included in the appendix:

Improve access to data bases and on line reference materials.

Access to advanced university courses.

Improved ability to utilize computers.

Improved telephone access to tutors (at lower cost).

Availability of ACCESS NETWORK in the home.

Two way audio-visual contact.

Educational programs on T.V. (family, adult, child).

D.1.3 SUGGESTIONS ON HOW TO MAKE IMPROVEMENTS

Survey participants suggested a number of ways services might be improved. These inputs were largely gathered during the interview portion of the survey.

Increase ACCESS NETWORK coverage and accessibility through rebroadcasting in communities.

Establish either toll free or "education rate" telephone lines to improve ability to afford education and to increase tutor accessibility.

Enhance use of audio-video conferencing by increasing accessibility and improving understanding of what it can be used for.

D.2 TECHNOLOGY OVERVIEW

D.2.1 BASIC SERVICES PROVIDED CURRENTLY

Distance education appears to fall into three branches: traditional (curriculum correspondence); programming (PBS, Dr. Suzuki, etc.); and Interactive. The latter two apparently define our subject area based on our consultation groups' input.

ACCESS Network, Grant McEwan and AVC have begun programming involving a number of ground stations wherein there is live video and audio communication via satellite to the ground stations, and telephone linkage from the station back to the originating site. This allows "classrooms" to be run in a number of communities from one location.

Distance education utilizes the existing services in telecommunications: telephone, satellite for television and radio. It can extend to an interactive environment using such services as Telidon (which is a video-text communication service) and computer conferencing.

D.2.2 PARTIES INVOLVED

At least seven groups are involved in Alberta delivering Distance Education to the north. These are supported by the many northern groups.

ACCESS NETWORK
Athabasca University
University of Calgary
Grant McEwan College
Alberta Vocational Centres
Local School Authorities
Community Vocational Centres

D.2.3 TECHNOLOGY AND REGULATORY OUTLOOK

Teleconferencing can extend from audio linkage only; to one way video and two way voice; to two way audio and video. The expense increases from the first to the last quite dramatically.

Continued growth of the use of satellites in Distance Education is inevitable, as is the use of personal computers to improve access to data bases and interactive course materials.

Many other jurisdictions have similar situations to that found in Alberta. For example, TV Ontario and the Knowledge Network in British Columbia are both dedicated to improving education. There appears to be a need in Alberta to develop a co-ordinated strategy of broadcasting which encompasses services (the networks etc.) and development and program delivery.

Off-air broadcast services will continue as an important delivery mechanism for distance education, using both radio and television.

Work in Alaska is also worth noting although there may be some regulatory differences and funding differences based on community size, location etc. Reference materials are included in the working papers provided to the N.A.D.C.

D.3 ISSUES

How can the population be educated regarding the purposes that distance education can serve?

How can the real underlying needs for distance education be determined?

What are the costs and benefits of distance education?

How can the lead be provided in distance education in the north recognizing that each of the several parties involved has particular mandates, resources and interests?

Can two way communications be enhanced for both audio and video such that real-time education interaction can occur?

Is a flat rate (or telephone charge subsidy) for education telephone calls possible?

E. MOBILE TELEPHONE/TELEX

E.1 DEMAND

The services of both mobile telephone and telex appear to be satisfactory to the overall needs of the north.

The following data outline the characteristics of mobile telephone and telex use and demand in northern Alberta.

Availability of the Service	% of Reply
Mobile Telephone	
Yes	81
Don't Know	6
No Answer	13
Telex	
Yes	55
Don't Know	13
No Answer	32

Index of Importance of Service (Maximum of 10.0)

Mobile Telephone	10.0
Telex	3.4

E.1.1 KEY DEMANDS FOR MOBILE TELEPHONE AND TELEX

There does not appear to be any demand that is going unsatisfied.

E.1.2 SPECIFIC IMPROVEMENTS SEEN AS DESIREABLE BY PARTICIPANTS

Removal of a few "dead spots" from the mobile telephone coverage.

Increase channel availability.

E.1.3 SUGGESTIONS ON HOW TO MAKE IMPROVEMENTS

There were no major suggestions.

E.2 TECHNOLOGY AND REGULATORY OVERVIEW

E.2.1 BASIC SERVICES CURRENTLY AVAILABLE

Mobile telephone coverage is as complete in the north as modern communications technology can make it. Dead spots are likely terrain dependent and unavoidable, even in southern Alberta.

Telex services are basically available throughout the north. Also available are TWX/ENVOY 100 services from another supplier.

E.2.2 PARTIES INVOLVED

The following are involved in delivering mobile telephone and telex-type services in northern Alberta.

Alberta Government Telephones (AGT)
CNCP
Department of Communications, Canada
Alberta Government: Public Utilities Board
Private Mobile Suppliers

E.2.3 TECHNOLOGY AND REGULATORY OUTLOOK

Continued service improvement is likely in northern Alberta as new and increased services are added elsewhere in Canada.

E.3 ISSUES

There would not appear to be any substantive issues in the mobile telephone/telex area.

IV. OPTIONS FOR DEVELOPMENT

DEVELOPMENT OPTIONS VARY WITH THE DEGREE OF INTERVENTION POSSIBLE AND DESIRABLE

The foregoing sections indicate quite clearly that the identified demands for telecommunications services in northern Alberta can be largely fulfilled with existing technology. The limiting factors appear to be economics and regulatory considerations. Consequently the options for future development are distinguished by their respective characteristics of regulatory and policy intervention, and subsequently the degree of economic intervention (e.g. through subsidy programs).

The viable options must all reflect the demand profile as presented in the prior section. This may be summarized as follows:

Most important need:	Television	- more channels more locations
Next most important:	Radio	- FM coverage - AM coverage
	Telephone	- lower long distance cost - larger EFRC - individual line service (I.L.S.)
Adequate now:	Mobile Telephones Telex	
Uncertain demand:	Distance Education. Small Business	- better access

The last category, Uncertain Demand - Distance Education, was indicated in the prior section to be, in our view, a major need. However the lack of awareness has made capturing the specific needs difficult. That is, what distance education is and how it can be of benefit was just not known by most participants.

We have also identified "Small Business" in the uncertain demand category. This reflects our concern that the business community did not respond to the survey in great numbers, and therefore there is a chance some specific demands may have been missed. We put forward some of our views of the demands which might profitably be addressed - even though they have not been identified per se in the survey. Our experience suggests that the demand will be there if the ideas we put forward were properly communicated.

THREE OPTIONS MAY BE CONSIDERED VIABLE: MODIFIED STATUS QUO; CO-ORDINATED GROWTH; AND INDEPENDENT ACTION

We have contemplated a number of alternatives and suggest that three options may be considered viable:

MODIFIED STATUS QUO: This option retains all the characteristics currently found in the delivery of telecommunications services, including the development of new services through independent citizens discussions with government and major policy planning by governments. The status quo is suggested to be modified through the formation of a Standing Committee to co-ordinate and represent the needs and demands of northerners to governments and regulatory bodies. This group would work closely with the NADC and would represent the NADC, business, agriculture, communities and special interest groups. It would formulate requests for increased or modified services and would present these to the affected parties. It would serve to influence private sector decision making, and would include private sector persons on the committee. They would do periodic surveys of demands, but would not be involved per se in the delivery of programs to improve services. In this and all options, the Standing Committee would have a life of three to five years after which other mechanisms should be in place to ensure continued development.

CO-ORDINATED GROWTH: This option is similar to Modified Status Quo in that it would also see the formation of a Standing Committee, with the same general role as that outlined above. We would see however in this option that the Standing Committee would be more active in the delivery of programs to meet improved service requirements. We would suggest that they would identify a particular need area for action during a certain time frame (e.g. improving television coverage over the next three to five years; increasing individual line service) and would in effect manage a program to ensure needs are known, program parameters are developed, regulatory and delivery groups are co-ordinated and finally that the service is delivered.

This option also would see special action being taken in two areas: Distance Education; "Telecommunication Services Incubator" i.e. Small Business.

Distance Education needs special consideration if it is to fulfill its potential in the north. A clear picture of the needs of the north must be developed.

This will likely occur through an in-depth dialogue on its potential uses and applications, thereby creating an awareness of possible needs. Then co-ordination on how it should be delivered must be provided, particularly in terms of the physical distribution network to allow better coverage than currently exists. The Standing Committee must manage this separate program activity.

A "Telecommunication Services Incubator" has been defined by our consultants to be a pilot project to search for ways of delivering improved business effectiveness in the north through telecommunications. "Incubator" for Small Business is used to reference similar projects to assist small businesses to develop in their early stages, which is how we view the use of telecommunications to assist northern business at this point in time.

This would be a special project, co-ordinated through the Standing Committee and likely a formal part of either Economic Development or some other Alberta Government department. Its mandate would be to identify potential uses for telecommunications in improving small business operating effectiveness in northern Alberta. It would work closely with developments in the Distance Education area as there may be economies of scale in terms of delivery networks. Particular applications to be considered would include such things as:

- Management Assistance Program for small business (e.g. consulting advice, businessman training) via two-way teleconferencing;

- Computer timesharing services to share inventory information between suppliers;

- Computer conferencing (i.e. ongoing dialogue through electronic mail hook-ups) on social and business issues;

- Two way satellite communications for interactive access to data bases such as Alberta Agriculture. This might also apply to two-way communications regarding course material for distance education;

- Use of electronic mail for purchasing inquiries;

- Use of Telidon (videotext) for "at home" purchasing;

- Development of telecommunications services, procedures and products that can be resold to other communities of interest.

In essence, the "Telecommunications Services Incubator" for Small Business is suggesting that there are a lot of services available that, if packaged and used in the proper manner, could greatly enhance business effectiveness in the north. To allow this to happen there needs to be a focus given, and leadership taken.

INDEPENDENT ACTION: The last option suggests that the Standing Committee described in the prior section would become an independent action committee complete with funding and status to both develop alternatives and implement programs. One might consider this to be the establishment of a crown agency with the capacity to invest in the north. It would undertake all of the actions of the Co-ordinated Growth option, but would rely less on local authorities, existing departments, agencies etc. for assistance. In fact, it would be conceivable that the group would in fact act as the northern authority in discussions with the regulatory agencies.

MODIFIED STATUS QUO SUGGESTS NEEDS WILL BE MET IN TIME

When considering which alternative to suggest we have examined the options in terms of their benefits and constraints. The Modified Status Quo in our view is quite acceptable as an option if there is no particular hurry to make changes. That is, it relies on the existing procedures and policies for addressing telecommunications in the north. We would observe that there has been a very good record of providing basic services in the north, and that this option may indeed be satisfactory. However, it will not address any innovative uses and would, we believe, not address such questions as distance education nor a comprehensive plan for delivering improved television and radio services.

CO-ORDINATED GROWTH USES MODERATE INTERVENTION COUPLED WITH INNOVATIVE ACTION ON TELECOMMUNICATIONS APPLICATIONS

The Co-ordinated Growth option is our preferred alternative. We believe it builds on the historic base that is in place, while looking for innovative uses for telecommunications services in such areas as business and education. Perhaps of most importance is the provision of a focus not only to discuss but to lead in terms of stimulating actions to occur. Our view of the difficulties in the north currently is that there is no effective way of aggregating the needs of the northern communities of interest into a clear and workable plan

that can be presented to the involved agencies and delivery groups for their enhancement and implementation.

The negative aspect of this alternative is that it is not a zero cost option. There will need to be seed money available for the research into needs and the development of various pilot projects. We cannot estimate this cost at this time, as this will depend on scope, but would suggest that funding for three to five years to operate and deliver on major needs might range from $100,000 to as high as each project effort can be individually justified. This would lay the groundwork for delivery networks as well as completing several pilot initiatives.

INDEPENDENT ACTION PRESUMES REGIONAL POLICY VARIATIONS WHICH WOULD NOT APPEAR TO BE VIABLE

The Independent Action option would be beneficial in that needs could be uniquely met for northerners, in a short time period, presuming funding was available, and presuming that independent policies for telecommunications in the north were acceptable. Our discussions with regulatory bodies and delivery groups suggest that the latter point is not acceptable. Delivery must be consistent throughout the province in terms of policy; and regulatory bodies govern on a national scale. For this reason, striking out on one's own is simply not viable.

CO-ORDINATED GROWTH IS THE RECOMMENDED FUTURE FOCUS

The next section outlines a suggested orientation that might be taken in implementing a Co-ordinated Growth option for telecommunications services in northern Alberta.

V. FOCUS FOR THE FUTURE

THE TELECOMMUNICATIONS SEMINAR FORMS A STARTING POINT

The Telecommunications Seminar being planned for later this year forms an excellent starting point for discussion of the manner in which to address telecommunications needs in the north. We outlined in the report that there is a genuine interest in telecommunications amongst northerners. To make any effective improvements in services, this interest must be converted into committed actions. Through dialogue at the seminar the needs should be clearly understood and ratified and likely enhanced. From this point then the options for development may be reviewed and one direction recommended.

We would suggest that the best option from our view would be Co-ordinated Growth as outlined in the prior section. The seminar participants may alter this view however with the clarity that group discussion often brings. Presuming that the seminar did select the Co-ordinated Growth option, it would be critical for the seminar to have these outputs generated at its end:

- agreement as to needs:
  - particular services;
  - priority;
  - benefits.
- view on urgency of addressing needs;
- view on distance education:
  - need to further define;
  - need for services.
- view on "telecommunications services incubator" (Small Business services):
  - need to further define;
  - uses seen;
  - leadership possibilities.
- view on Standing Committee:
  - membership;
  - role;
  - relationship to government.
- outstanding issues in need of consideration.

Together these outputs will outline a mandate for the Standing Committee, and clearly frame the conditions that must be met for success.

A STANDING COMMITTEE MUST BE FORMED

We are presuming that the success of addressing the largely community based needs for telecommunications services in the north comes from the ability to organize a community based Standing Committee that will lead and focus future developments. We suggest that the N.A.D.C. could prove very helpful in this effort by offering to chair the committee initially, and to orchestrate its formation.

To ensure the commitment of the members, we would recommend that membership be accompanied by a reasonable honorarium. Also, we suggest that the committee should be kept to no more than eight persons, three with a two year membership, five with a three year membership. This will aid in recruitment and in ensuring both continuity and fresh ideas.

Solid goals and measurement of performance must be committed to at the outset. Progress must be seen to be made, as well as being made.

A PROGRAM OUTLINE MUST BE DEVELOPED

The first task of the Steering Committee must be to develop an action program or plan for three to five years. We suggest that the program should consider four major elements:

- Television and Radio
  - Increase coverage
- Telephone
  - Decrease Long Distance Charges
  - Increased Individual Line Service
- Distance Education
  - Assess needs
  - Develop Delivery network
- Telecommunications Services Incubator Pilot Project
  - Define service possibilities
    - computer communications
    - two-way teleconferencing.

Each program element should be defined in terms of the results expected, the scope to be undertaken, and a specific set of action steps to be applied. Our review has suggested a number of specific concepts in each of these areas that might be utilized to meet the needs in the north. The next few paragraphs outline these thoughts, and hopefully serve as beginning discussion points.

TELEVISION AND RADIO COVERAGE: SOME POSSIBILITIES

As indicated in Section III, television and radio coverage in northern Alberta is felt to be inadequate. Either the CANCOM system of distribution is viewed as too expensive, or no proper signal and retransmission facilities are available or approved by regulatory bodies. To meet the minimum requirement of two television channels (one Canadian, one American) and FM or AM radio, a comprehensive network of distribution must be made available at economic rates and within regulatory guidelines. And, this must be done with recognition of the Federal control of broadcasting.

There would seem to be a number of possible routes to consider. One would be to establish, in conjunction with distance education needs, rebroadcast facilities in the local communities, utilizing satellite signals as feed. This would require the installation of a fairly large number of rebroadcast sites, at upwards of $30,000 per site (the number of sites dependent on the number of communities being served). In order to be able to rebroadcast more than the educational channel, the community would need to acquire access to CANCOM or an equivalent, or have independent regulatory approval.

We suggest that rate negotiations might be greatly improved with CANCOM if an overall approach was made i.e. assuring a much increased customer base than currently exists. If this proved unfruitful then we would suggest consideration be given to seeing if other entrepreneurs might not be interested in the market as a competitor to CANCOM. By this we do not mean to imply that CANCOM rates are excessive, but rather, that a broader base and increased competition are traditional private sector mechanisms for lowering costs, which does not appear to be being pursued at this time. Of course, Federal regulation is important here.

Therefore, we suggest that a local community based network of local rebroadcast services that handle both distance education requirements as well as commercial services such as CANCOM would meet the needs in this area. The requirement for government would be funding support to make the rebroadcast facilities possible, and management advice on the maintenance and operation of these, and of course licensing approval.

TELEPHONE: LONG DISTANCE RATES AND INDIVIDUAL LINE SERVICE

The desire by residents in northern Alberta to have their long distance load lowered, and to decrease the number of party lines, is understandable not only for this location

but in all of Alberta. However, long distance charges and Extended Flat Rate Calling, and installation of individual line service are governed by policies that affect all of Alberta, many parts which are as distant from major population centers or other population centers as is the case in northern Alberta. Consequently, any change in these policies must be made with full awareness of the impacts on the rest of Alberta.

This is not to suggest that changes should not be pursued. On the contrary, given the desire of the citizens for such services, it is imperative to begin a lobby effort to stimulate discussion and develop acceptable solutions (e.g.: a separate study by the Lakeland Environmental Agriculture Protective Society resulted in a 2700 name petition for toll free telephone service, and received over 200 phone calls requesting idividual line service).

We suggest that there are a few considerations that might be beneficial to consider in this overall area that might be implemented without major cost or policy implications.

First, selected services could have either preferential tolls or "800" service provided. For example, extension of the R.I.T.E. system to ensure low cost government access would appear reasonable. Also, special rates could be provided for Educational use, agricultural use, medical and emergency access (e.g. improvement was desired in the "911" service), and perhaps to facilitate contact with computer data bases. These rates in effect might be subsidies from involved departments e.g. Edmonton, Agriculture.

Second, a "population density" test might be added to E.F.R.C. consideration, such that the 35 mile limit might be extended to provide small populations "reasonably" close together to operate on a flat rate basis, subsidized by higher population areas. This should be considered for all of Alberta. We have been told by a number of sources that this will likely be very costly, and we tend to agree at first review, but we would still support its rigorous analysis.

Third, a subsidization of long distance calling and individual line service installation generally could be considered. We suggest that this alternative has as many up sides as down sides, but that our overall view would be against adding broad subsidization, unless it could be done for all similarly populated areas of Alberta. The more reasonable approach in our view is that outlined in the first paragraph re: specific service pricing.

DISTANCE EDUCATION: DETERMINE NEEDS; DEVELOP NETWORK

We have suggested that it is imperative to determine the specific needs that might exist for distance education. There are a number of alternatives open to doing this, beginning with a comprehensive survey of needs via instruments such as were used in this study, and extending through a program of community-based consultation. We would suggest the former would be most appropriate and cost effective.

We also suggest that there is a need for the various delivery agencies to work through a focussed point for delivery. That is, the Standing Committee or a sub-committee thereof must outline with the delivery agencies what is needed.

There is a need to develop a comprehensive delivery plan. As suggested in the television and radio section, this should be done in conjunction with television and radio services generally.

Our review of other jurisdictions suggests that a single and full delivery pattern seems quite effective. For example, extending ACCESS NETWORK's satellite delivery concept through a network of local rebroadcast facilities would seem very positive. This would go beyond the receipt and limited redistribution of signals that now occurs. For example, the program of course delivery through satellite and live interaction via telephone from 10 remote sites could be greatly enhanced through the use of rebroadcast facilities and "800" telephone line service. Inclusion of plans and facilities of such groups as Athabasca University must also be done.

As discussed earlier, there would likely need to be a government sponsored program to assure financing, operation and maintenance of this network, and this would probably not be feasible without the inclusion of commercial services for which a limited fee may be charged.

Another service which should be pursued in this, and the "telecommunications services incubator" project area, is the use of two way data communications satellite dishes to increase computer based course access (e.g. tutorials through interactive use of personal computers) as well as business applications per se. The proposed ANIKOM 200 service looks to have this potential at "affordable" rates, although we are hesitant to quote these as a great deal of further review is required.

TELECOMMUNICATIONS SERVICES INCUBATOR FOR SMALL BUSINESS: A PROJECT

As described earlier in the report in some depth, we see an opportunity to improve business effectiveness in northern Alberta through the use of telecommunications services in innovative as well as practical and known ways. We suggest that with some focussed leadership businesses, including the farm, can improve their effectiveness by "tapping in to" the resource base found in telecommunications services. We have previously outlined a number of examples of what these services might include, and repeat here the essence of the approach we suggest:

- select a project leader to undertake a pilot program of one to two years to identify opportunities for using telecommunications service in northern Alberta and for orchestrating their delivery;

- concentrate on high value activities that have short payback periods. These would likely include the delivery of business consulting services (such as the Management Assistance Program) through the use of teleconferencing; the use of computerized inventory access and purchase order placement; the use of computer timesharing for conferencing and message exchange; and the use of two-way data communications satellites for computer communications (see distance education);

- solicit as many ideas as possible to consider all possible routes for improving telecommunications in business. That is, act as a focus for generating and "incubating" ideas that otherwise might not develop enough momentum to succeed because of the smaller population base in northern Alberta.

The project could be run as a part of an existing government department or as a government/private funded venture independent of government that would, unless clear results were demonstrated, wind up in two years. We recommend the latter route be followed.

RESOURCING TO GET THE WORK DONE WILL BE IMPORTANT

One must also face at this point the question of "Who will do the work?" That is, the Standing Committee can likely make decisions when presented with information, but will they be in a position to actually do work? We suggest this is unlikely, and that they should assume that they will work with existing government staffs to get work done, or through commissioning of very specific consulting types of services. We would suggest that whenever possible it would be preferable to use community

based resources in volunteer or existing civic capacities, but there may be a limit to both their knowledge and capacity given other responsibilities.

We recognize that all of these options cost money. Careful evaluation must be done to each step to ensure returns received will in fact measure up to costs involved. This will be an important role of the Standing Committee.

FORMAL REVIEW POINTS SHOULD BE SELECTED

It will be important for the Standing Committee to define formal and regular review points to be assured that expected results are being met. That is, there is not an unlimited set of needs to be fulfilled, and the Standing Committee should take an active view towards trying to work itself out of a job, turning affairs back to the normal routine relationships as work in other parts of Alberta. We do not have an estimate for when this point would occur, but we would suggest it would occur within the next three to five years.

MEETING TELEVISION, RADIO, AND TELEPHONE CONCERNS WILL BE THE MAIN TEST OF SUCCESS - BUT OTHER EXCITING DEVELOPMENTS WILL RESULT AS WELL

Clearly, the northern community has several specific needs in the areas of television, radio and telephone. Meeting these needs will assure that the Standing Committee has been a success. In addition, its efforts to heighten the understanding and delivery of Distance Education will, in the longer term, be found to be of substantial benefit. And should any success be found in increasing business effectiveness through the improved use of telecommunications services in "incubator" pilot projects, then a direct economic return will result as well.

The use of telecommunications services in the north has an interesting future, and one which we feel that northerners can themselves directly influence through the approach we have outlined.

APPENDIX A

QUESTIONNAIRE OUTPUT

QUESTIONNAIRE ANALYSIS
REVIEW OF TELECOMMUNICATION NEEDS IN NORTHERN ALBERTA

SECTION ONE - GENERAL

1-1 MOTHER TONGUES

ENGLISH:	81	
FRENCH :	6	
CREE :	4	
Not Specified:	15	
OTHER :		
	CHIPEWYAN	91

1-2 AVAILABLE SERVICES

-------SERVICE-------	AVAILABLE	DON'T KNOW
Mobile Telephone	87	6
Telephone	102	0
Television (no charge)	92	0
Cable Television	66	4
Pay TV	35	5
Radio Broadcasting	82	1
Distance Education	61	15
Telex	59	14

1-3a SERVICES REQUIRING IMPROVEMENT

	--------ORDER OF IMPROVEMENT---------						NOT
--------SERVICES--------	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	INDICATED
Mobile Telephone	10	4	8	3	2	2	78
Telephone	28	11	2	2	1	1	62
Television	28	29	5	1	2	1	41
Radio Broadcasting	17	26	10	1	1	0	52
Distance Education	13	8	10	5	1	0	70
Telex	3	1	2	2	1	4	94

NO IMPROVEMENT NEEDED IN ANY OF THESE SERVICES: 9

AT LEAST ONE SERVICE NEEDING IMPROVEMENT: 98

1-3b HOW to improve the first service

SERVICE = TELEVISION
CLEARER RECEPTION
THERE ARE COURSES AVAILABLE THROUGH ACCESS BUT WE DON'T RECEIVE THEM
TELEVISION, T.V. RADIO AND DISTANCE EDUCATION CAN ALL BE IMPROVED BY VARIET
BETTER QUALITY RECEPTION
MORE CHANNELS ARE NEEDED, CABLE TV IS MORE EXPENSIVE LOCALLY THAN OTHER ARE
CABLE TELEVISION SERVICE WITH RESPECT TO PROGRAMMING
BETTER RECEPTION
LOCAL CABLE COMPANY SHOULD BE ALLOWED TO CARRY BOTH CANADIAN AND AMERICAN
ACCESS TO MORE CHANNELS, MOST AVAIL NOW ARE SCRAMBLED
BY SECOND CHANNEL
CABLE RECIPIENTS ARE ASKED TO PAY VOLUNTARILY, NOT ENOUGH DO, NEED CABLE
QUALITY OF CABLE RECEPTION SHOULD BE IMPROVED
WOULD BE NICE TO HAVE TSN
ONLY CBC IS REC'D WITHOUT CHARGE, AT LEAST 2 MORE CHANNELS COULD BE AVAIL.
LOCAL PROGRAMMING REQUIRED, MORE DISCRETION, QUALITY IS POOR
NEED A COMPETING CABLE SERVICE THAT WILL LOWER CABLE FEES & IMPROVE QUALITY
TSN INCLUDED IN CABLE
CBC IS HARDLY A MENU, SERVICE FROM AT LEAST 3 NATIONAL NETWORKS FOR BALANCE
MORE CHANNELS
PROVISION OF BROADER SELECTION & IMPROVED SERVICE
BY PROVIDING CABLE
THE AVAILABILITY OF MORE MOBILE CHANNELS OR AURORA SYSTEM
CABLE T.V. IN SWAN HILLS CARRIES NO CANADIAN CAHNNELS
MORE AND BETTER CHANNELS AVAILABLE
SHOULD BE ABLE TO GET CBC FRENCH FOR BILINGUAL EXPOSURE & CTV AND ITV
QUALITY OF PICTURE POOR AT TIMES DUE TO TROUBLE WITH RECEIVER (BEAVERLODGE)
PROVIDE EQUAL PROGRAMMING AS IS PROVIDED IN THE LARGER CENTRES
TV SERVICE SHOULD BE MORE AVAILABLE EVEN IN SMALL HAMLETS, LESS EXPENSIVE

SERVICE = RADIO BROADCASTING
MORE STATIONS, WIDER VARIETY OF PROGRAMMING, PROGRAM UPGRADING
IN VALLEYVIEW WE DO NOT GET PRIORITY ON NEWS ITEMS FROM ANY RADIO STATIONS
MORE STATIONS SHOULD SERVE THE AREA
TELEVISION, T.V. RADIO AND DISTANCE EDUCATION CAN ALL BE IMPROVED BY VARIET
WOULD LIKE TO HAVE FM IN THIS AREA
ADDITIONAL CHANNELS TO E AVAILABLE, ONLY 2 AT PRESENT
FM RADIO SHOULD BE MADE AVAILABLE THROUGH RE-BROADCAST STATIONS
NEED EXTRA BOOSTER STATIONS, CAN'T PICK UP FM
THE QUALITY OF FM RECEPTION COULD BE IMPROVED
INCREASE NUMBER OF STATIONS AVAILABLE
BETTER QUALITY AND VARIETY OF FM STATIONS
AS HIGH LEVEL IS DEPENDENT ON RURAL AREA A TOLL FREE ZONE IS NECESSARY
ERECT PERMANENT BLDG INSTEAD OF TRAILER, BRING IN MODERN EQUIPMENT
FM RADIO, LOCAL BROADCASTING
GREATER VARIETY OF AM AND SOME FM AT PRESENT NO LOCAL CBC
BETTER SELECTION OF PROGRAMS & STATIONS, WOULD LIKE TO RECEIVE FM
THERE ARE NO FM STEREO STATIONS IN AREA/RECEPTION FROM OUTSIDE IS POOR

1-3b HOW to improve the first service (con't)

SERVICE = TELEPHONE
TOLL FREE SERVICE TO ADJACENT MUNICIPALITIES
THERE SHOULD BE NO PARTY LINES
MORE DIRECT LINES AND PRIVACY REQUIREMENTS
TELEVISION, T.V. RADIO AND DISTANCE EDUCATION CAN ALL BE IMPROVED BY VARIET
PARTY LINE ANNOYING FOR BUSINESS, NO PRIVACY, PROBLEM IF EMERGENCY
NEED RESTRICTED PHONES SO PEOPLE CAN NOT RUN UP BIG PHONE BILLS
TELEPHONE: NEWER SWITCHING EQUIPMENT, LOCAL SERVICE PERSONNEL
TOLL FREE DIALING WITH THE COUNTY OF GRANDE PRAIRIE
REGULAR UNINTERUPTED SERVICE NECESSARY, CANT ALWAYS GET A LONG DISTANCE LIN
MORE PRIVATE LINES
BY DELETING PARTY LINES IN HAMLETS & SUMMER VILLAGES, 4 PARTIES IS ABSURD
FEEL THERE SHOULD BE FREE CALLS TO BEAVERLODGE WHERE OUR HIGH SCHOOL IS
TELECONFERENCING WHERE VISUAL AS WELL AS AUDIO INFO. IS EXCHANGED
PRIVATE PHONE LINE FOR RURAL RESIDENTS
OBSOLETE EQUIPMENT SHOULD BE REPLACED
TELEPHONE LINES ARE DOWN TOO OFTEN
THEY SHOULD BE PRIVATE LINES IN RURAL AREAS
MORE PRIVATE LINES IN RURAL AREAS AND GENERALLY MORE RELIABLE SERVICE
AT THE PRESENT TIME WE UTILIZE PARTY LINES, SHOULD BE SWITCHED TO PRIVATE
AS HIGH LEVEL IS DEPENDENT ON RURAL AREA A TOLL FREE ZONE IS NECESSARY
EQUIPMENT UPDATED & MORE LINE CAPACITY INSTALLED, MORE PRIVATE LINES
REDUCE THE NUMBER OF PARTY LINES
ERECT PERMANENT BLDG INSTEAD OF TRAILER, BRING IN MODERN EQUIPMENT
PHONE VERY IMPORTANT, 25 MI. FROM HIGH PRAIRE, NO LONG DISTANCE
REDUCE RATE FOR EDUCATION PURPOSES, MOVE TOWARDS INDIVIDUAL LINE SERVICE
ONE EMERGENCY NUMBER FOR ALL EMERGENCIES, TOLL FREE LONG DISTANCE
REMOVAL OF PARTY LINES, UPGRADE QUALITY OF LINES, FASTER SERVICE (REPAIR)

SERVICE = DISTANCE EDUCATION
TELEVISION, T.V. RADIO AND DISTANCE EDUCATION CAN ALL BE IMPROVED BY VARIET
WE WOULD BENEFIT BY ACCESS NETWORK
BROADER BASED SO THAT MORE PEOPLE CAN ACCESS THE SERVICE
PROVIDE MECHANAISM TO LINK EQUIPMENT WITH URBAN CENTRES VIA PHONE
MAKE DISTANCE EDUCATION AVAILABLE IN VOCATIONAL COURSES FOR SCHOOL STUDENTS
RESOURCES AVAILABLE IN URBAN CENTRES SO IT SHOULD BE IN RURAL TOO
MORE AIRTIME SHOULD BE SPENT ON EDUCATIONAL PROGRAMS
MORE TELECONFERENCING AVAILABLE LOCALLY
EXPAND COURSE CONTENT, FORMALIZE REGISTRATION TO PERMIT RECOGNIZING CREDIT
DISTANCE ED. SHOULD BE IMPROVED THROUGH A LOCAL CENTRE USING VIDEO & AUDIO
PROVISION OF SERVICES IN THE SCHOOL, HOMEWORK HOTLINE AT DIFFERENT TIMES
WE DON'T HAVE ANY
ACCESS TO DATAPAC LINE WOULD IMPROVE ACCESS TO DISTANCE EDUCATION SERVICES

SERVICE = MOBILE TELEPHONE
INTRODUCTION OF NEW CELLULAR MOBILE TELEPHONE SYSTEM
VERY HARD TO HEAR
PRESENTLY CHANNELS ARE CROWDED AND THERE ARE TOO MANY DEAD SPOTS
THE AVAILABILITY OF MORE MOBILE CHANNELS OR AURORA SYSTEM
GREATER COVERAGE AND REMOVAL OF "DEAD SPOTS"
MORE RECEIVERS AND LINES, IT'S OFTEN DIFFICULT TO GET A LINE OUT
COMMUNCATION WITHIN THE BAND IS BY MOUTH (UNABLE TO REACH ALL PEOPLE)
UPGRADING OF EQUIPMENT - SIGNALS OFTEN DO NOT CARRY WELL
OFTEN YOU CANNOT GET THROUGH TO THE PART YOU WISH TO SPEAK TOO
AGT SHOULD NOT USE AURORA SYSTEM, IS NOT COMPATABLE ANYWHERE ELSE IN CANADA

SERVICE = TELEX
AS HIGH LEVEL IS DEPENDENT ON RURAL AREA A TOLL FREE ZONE IS NECESSARY
THERE IS NO TELEX SERVICE IN OUR AREA
TELEPHONE, EXTENDED RADIO RECEPTION & PROGRAM CAPABILITY, TV RECEPTION

1-3c HOW to improve the SECOND service

SERVICE = TELEVISION
CABLE IS AVAILABLE BUT AT $20/MO. IT IS TOO EXPENSIVE FOR SOME RESIDENTS
MORE RECEPTION AND BETTER RECEPTION
MORE STATIONS SHOULD SERVE THE AREA
TV IS NOT AVAILABLE IN WANDERING RIVER, CRTC WON'T LET SIGNAL BE INCREASED
WOULD LIKE TO HAVE CABLE TV IN OUR COMMUNITY
TV (NO CHARGE) BETTER SIGNAL FOR RECEPTION, MORE MOBILE PHONE CHANNELS
RECEPTION CABLE
MORE CDN CONTENT, A LOT LESS U.S. TV PROGRAMS, DON'T NEED MORE CHANNELS
BETTER RECEPTION
MORE T.V. STATIONS THAN 2 PERHAPS CBC FRENCH AND ITV
CBC AVAILABLE ONLY WITH CABLE WHICH IS VERY LTD., QUALITY NOT GOOD
CABLE IS GOOD NOW BUT THEY INDICATE THEY HAVE TO DROP SOME ILLEGAL CHANNELS
TV SERVICES RESTRICTED PROGRAMMING PLUS LTD. FREE STATIONS
PBS AN IMPROVEMENT IN THE QUALITY OF TV WOULD BE WELCOME, EDUCATIONAL
INCREASE CHOICE OF STATIONS
MORE PROGRAMS THAT ARE CULTURALLY RELEVANT FOR OUR AREA IN CREE
MORE "ON-AIR" SIGNALS
CABLE OR SATELLITE
MORE EDUCATIONAL/PUBLIC AFFAIRS SHOWS NEEDED
THROUGH THE ADDITION OF NO CHARGE CHANNELS AND ACCESS-TV
AT PRESENT WE ONLY RECEIVE TWO CHANNELS AND WOULD LIKE TO HAVE MORE
IMPROVED SIGNALS, COMMUNITY CHANNEL WITH PROGRAMMING AVAILABLE, DISNEY
ONLY DECENT TV RECEPTION IS BY DESCRAMBLER THROUGH LOCAL LICENSER, $$$$$
EDUCATION PROGRAM, MORE PUBLIC SATELLITE SERVICES
GET MORE T.V. STATIONS - CABLE PERHAPS?
MORE MODEST LINE CHARGES FOR DEDICATED TELECONFERENCING LINES
LIMITED SELECTION OF CHANNELS
BETTER QUALITY TRANSMISSION, MORE CHOICE OF CHANNELS

SERVICE = RADIO BROADCASTING
CABLE IS AVAILABLE BUT AT $20/MO. IT IS TOO EXPENSIVE FOR SOME RESIDENTS
GREATER RANGE OF BROADCASTING
ACCESS TO RADIO STATION FROM EDMONTON IS LIMITED, FM WOULD BE VERY NICE TOO
COMMUNITY RADIO STATION FOR LOCAL INFORMATION
NONE AVAILABLE NOW AS FAR AS I KNOW
MORE VARIETY, ONLY GET CBC NORTH FROM 1-5 PM, ALL IN "DOG RIB" LANGUAGE
BETTER CBC RECEPTION, LOCAL RADIO BROADCASTING DESIREABLE BUT COSTS TO MUCH
IMPROVE QUALITY OF RECEPTION, SIGNALS ARE AFFECTED BY WEATHER FLUCTUATIONS
ONLY ONE LOCAL AM REBROADCAST STATION, OTHER STATIONS UNAVAIABLE
RECEPTION FLUCTUATES WIDELY, NO FM IS AVAILABE
NEED FM REBROADCAST TOWER TO BRING IN FM SIGNAL FROM OTHER ALBERTA CENTRE
FM ROCK STATION
BETTER RECEPTION, AT THE PRESENT TIME UNLESS IT IS VERY COLD AND CLEAR, NOT
RADIO IS LTD TO CBC, BETTER PROGRAMMING & CHOICE IS REQUIRED, FM TOO
PROVIDE EDUCATIONAL PROGRAMMING OF A WIDE VARIETY OF TOPICS
THERE IS NO FM STATIONS IN THE AREA
MORE VARIETY THAN CBC
MORE PROGRAMS THAT ARE CULTURALLY RELEVANT FOR OUR AREA IN CREE
BOTH AM & FM RADIO RECEPTION IS POOR
BETTER PROGRAMMING (PUBLIC AFFAIRS, ETC.)
BLANKS IN PROGRAMMING SIGNAL, SIGNAL TESTING IS ANNOYING, NEED MORE STATION
PROVIDE FM
ONLY HAVE 2 STATIONS
MORE MODEST LINE CHARGES FOR DEDICATED TELECONFERENCING LINES

1-3c HOW to improve the SECOND service (con't)

SERVICE = TELEPHONE
- WOULD LIKE TO HAVE CABLE TV IN OUR COMMUNITY
- NUMBER FOR EMERGENCY CALLS - 911 - AGT COULD OPERATE
- LONG DISTANCE CALLS TO EDMONTON ONLY SHOULD BE SUBSIDIZED
- MORE AREAS REQUIRE TOLL FREE CHARGES TO THEIR SERVICE AREAS & PRIVATE LINES
- TO AVOID SOME TRAVEL GREATER USE OF TELEPHONE COULD HELP REMOTE AREA
- REDUCTION OF LONG DISTANCE RATES TO ALBERTA LOCATIONS
- THERE IS OFTEN A LONG "WAIT" TO BE ANSWERED TO TRA
- SHOULD BE BETTER RECEPTION OF OUR CANADIAN STATIONS, NOT AMERICAN
- NORTHERN AREAS SHOULD BE TOLL FREE TO NORTHERN CENTRES, WE ARE AGT'S VICTIM
- LONG DISTANCE IS TOO EXPENSIVE AND INCONVENIENT
- 800 NUMBER SERVICE NOW USED BY NORTHERN BUSINESS MUST COVER WHOLE PROVINCE

SERVICE = DISTANCE EDUCATION
- AN EDUCATION CHANNEL ON T.V. WOULD BE NICE
- AVAILABILITY OF D.E.S. TO MORE SCHOOLS IN AREA
- ACCESS TO UPGRADING OR ACCESS PROGRAMS VIA TV INSTRUCTION
- BETTER ARRANGEMENTS FOR HOOKUP TO SCHOOL DISTRICTS
- MADE MORE READILY AVAILABLE
- NEED A FREE EDUCATIONAL CHANNEL THE SAME WAY THAT CBC & CTV ARE AVAILABLE
- TO LOW INCOME AS WELL AS HIGHER INCOME WANT access TV
- MORE MODEST LINE CHARGES FOR DEDICATED TELECONFERENCING LINES

SERVICE = MOBILE TELEPHONE

SERVICE = TELEX

QUESTIONNAIRE ANALYSIS
SECTION TWO - TELEPHONE

2-1 DO YOU HAVE ACCESS TO A TELEPHONE

LOCATION	YES	NO
At home:	99	4
At work:	95	0

2-2 WHY THERE IS NO RESIDENCE PHONE

Too Expensive :	3
Waiting for Installation:	0
Can't get Type of Serv. :	2
Can't get Serv. to Resid:	0
No Need for a Telephone :	0

OTHER:
WON'T PAY FOR BADSER

2-3a WHAT IS YOUR RESIDENTIAL TELEPHONE MAINLY USED FOR?

	----------ORDER OF IMPROVEMENT--------								NOT
--TELEPHONE USES--	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	INDICATED
COMPUTER	0	1	3	1	3	2	0	0	98
CONVENIENCE	14	14	12	13	11	0	1	0	43
EMERGENCY	23	9	13	11	9	1	0	1	41
SOCIAL REASONS	31	20	10	4	6	2	0	0	35
BUSINESS	14	27	13	12	4	1	0	0	37
DIST. EDUCATION	1	0	0	0	0	0	1	0	106
FAMILY REASONS	14	16	13	8	5	0	0	0	52
OTHER REASONS	0	2	0	0	1	1	0	0	104

OTHER REASONS (specified):
BUSINESS
WORK
SAVES TIME BUT $$

2-3b FIRST MOST IMPORTANT TELEPHONE USE

USE = COMPUTER:

USE = CONVENIENCE
PHONE SAVES MANY TRIPS DOWNTOWN
INSTANT RESPONSE SAVES TIME, MONEY AND USELESS TRIPS TO GET INFO OR REPAIRS
CONVENIENCE TIME SAVING BEST ANSWER
SAVES TIME IN CONTACTING PEOPLE OUTSIDE YOUR OWN COMMUNITY
EMERGENCY HELP - SELF EVIDENT WHY IT IS MOST IMPORTANT
GIVES US ACCESS TO BUSINESS IMMEDIATELY RATHER THAN HAVING TO GO IN PERSON
ALL ARE EQUALLY IMPORTANT
USING THE PHONE IS A BASIC CONVENIENCE
EASY CONTACT
IT IS IMPOSSIBLE TO TRAVEL LONG DISTANCES TO MAKE APPOINTMENTS WITH DR.'S
SPEED, INSTANT COMMUNICATION, PERSONAL CONTACT
BECAUSE OF DISTANCE IT WOULD BE COSTLY TO DRIVE, HAZARDOUS IN WINTER

USE = EMERGENCY:
COULD SAVE MY LIFE
IN THE COUNTRY YOU NEVER KNOW WHEN AN EMERGENCY MAY ARISE
TO RESPOND TO THE NEEDS OF MY FAMILY
WHEN IT IS -50 IN AN EMERGENCY PHONE IS A LOT MORE CONVENIENT
FOR THE SAFETY AND WELFARE OF MY FAMILY
ALLOWS ME TO KEEP IN TOUCH WITH FAMILY MEMBERS
EMERGENCY HEALTH, ETC.
WE MUST BE ACCESSIBLE - AS AN ACUTE CARE HOSPITAL
ALL ARE EQUALLY IMPORTANT
EMERGENCY SERVICES IS A MUST
EASY CONTACT
ESSENTIAL SERVICES AND NEEDS TO TODAYS WAY OF LIFE, SHOULDN'T SETTLE FORLES
ABILITY TO CALL ASSISTANCE FOR FIRE, AMBULANCE OR POLICE IF NEEDED
SPEED, INSTANT COMMUNICATION, PERSONAL CONTACT
NEED AMBULANCE/FIRE/TOW TRUCK LONG DISTANCE & PARTY LINE
EMERGENCIES, LIVING OUT OF TOWN - BEING REMOTE
THE FIRST METHOD USED TO SUMMON ASSISTANCE
EMERGENCY SERVICE RARELY USED BUT IT CAN SAVE SOMEONE'S LIFE
LIVE 15 MILES FROM EMERGENCY SERVICE SOMETIMES ROAD NOT IN GOOD CONDITION

USE = SOCIAL REASONS:
FAMILY IS OUT OF TOWN, CONVENIENT TO CALL THEM
KEEPING IN CONTACT WITH FRIENDS,
TO KEEP IN CONTACT - TIME SAVER
MY WIFE LIKES TO TALK TO HER RELATIVES EVERY SECOND DAY
OBTAINING AND SHARING INFO ABOUT EVENTS IN THE COMMUNITY WITHIN SOCIAL CIRC
VOLUME OF CALLS
THIS IS WHAT WE USE THE TELEPHONE FOR MOSTLY
COMMUNICATION
FOR COMMUICATION TO KEEP IN CONTACT WITH FRIENDS
COMMUNICATION WITH FRIENDS AND RELATIVES
FAMILY LIVING IN BEAVERLODGE, PARENTS GETTING FAIRLY OLD
DISTANCES MAKE THE TELEPHONE EASIER THAN TRAVEL AND ALSO CHEAPER
SELF EVIDENT
FRIENDS & RELATIVES ARE A GREAT DISTANCE AWAY
LIVING IN RURAL AREA IT IS THE ONLY WAY YOU STAY IN CONTACT
ALL ARE EQUALLY IMPORTANT
EASY MEANS OF COMMUNICATION IN ISOLATED COMMUNITY
CHILDREN USE PHONE MOST

2-3b FIRST MOST IMPORTANT TELEPHONE USE (con't)

TO MAINTAIN CONTACT WITH FAMILIES & FRIENDS
ESSENTIAL SERVICES AND NEEDS TO TODAYS WAY OF LIFE, SHOULDN'T SETTLE FORLES
CHILDREN FIND IT MORE IMPORTANT THAN I DO, IT'S A LIFELINE TO THEIR FRIENDS
CONTACT WITH FRIENDS FOR GENERAL DISCUSSION
KNOW MANY PEOPLE AND TELEPHONE COMMUNICATION IS INSTANT
SOCIAL CALLS ARE THE MAIN USE
FAMILY & FRIENDS SPREAD OUT THROUGHOUT WORLD
PERSONAL CONTACT WITH FRIENDS AND RELATIVES
USED MOST FREQUENTLY FOR THIS PURPOSE
MAIN USE OF TELEPHONE FOR ALL MEMBERS & FAMILY

USE = CONTACT WITH BUSINESS:
BUSINESS IS IMPORTANT IN MY LIFE
TO BE ABLE TO CARRY ON BUSINESS, MAKE A LIVING
ON CALL WITH MY JOB
CONTACT WITH CLIENTS, EDUCATION RELATED CALLS
AREA IS REMOTE FROM MAJOR SERVICES & FARMERS DO BUSINESS BY PHONE
QUICK COMMUNICATION FOR BUSINESS APPOINTMENTS, DECISION MAKING
NEED TO TELEPHONE PLACES OF BUSINESS IN CONNECTION WITH OUR OPERATION
ALL ARE EQUALLY IMPORTANT
BUSINESS CALLS ARE OFTEN TRANSFERRED BY ANSWERING SERVICE TO MY RESIDENCE
EASY CONTACT
TIME SAVINAG
SPEED, INSTANT COMMUNICATION, PERSONAL CONTACT
BOTH HUSBAND AND MYSELF OPERATE BUSINESSES
HEALTH, SOCIAL, EDUCATIONAL, PHONE DECREASES TIME TO INITIATE CONTACT

USE = DISTANCE EDUCATION:
FAMILY LIVES DOWN EAST

USE = FAMILY REASONS:
TO KEEP IN CONTACT AT ANY TIME
NOT YOUR BUSINESS TO KNOW
MAINTAIN CONTACT WITH FAMILY WHILE LIVING APART
KEEP IN TOUCH WITH FAMILY ACROSS CANADA
SELF EVIDENT
FAMILY SPREAD ALL OVER CANADA, QUICK WAY TO COMMUNICATE
FAMILY MEMBERS ALL LIVE MORE THAN 85 MILES AWAY
MEMBERS OF FAMILY LIVE IN OTHER TOWNS, IMPORTANT TO KEEP IN TOUCH
VERY CONVENIENT TO MAINTAIN CONTACT AND KEEP IN TOUCH
DISTANCE THAT SERVICES FOR FAMILY ARE LOCATED IN THE SOUTH MAINTENANCE OF A
EASY CONTACT
ESSENTIAL SERVICES AND NEEDS TO TODAYS WAY OF LIFE, SHOULDN'T SETTLE FORLES
KEEP IN CONTACT WITH AGED MOTHER AND OTHER FAMILY MEMBERS

USE = OTHER REASON(S):

2-3c SECOND MOST IMPORTANT TELEPHONE USE

USE = COMPUTER:
IT SAVES A GREAT DEAL OF TIME

USE = CONVENIENCE
ACCESS TO EMERGENCY SERVICES
IT TAKES AT LEAST 30 MIN. TO DRIVE TO TOWN, ITS EASIER TO CALL WHEN LOOKING
SAVES ON TIME, TRAVELLING, ETC.
ENABLES ME TO MAKE APPOINTMENTS, ALTER, ETC.
CONVENIENCE
TO LINE UP FUTURE BUSINESS APPOINTMENTS
TIME SAVING
OTHER MOST FREQUENT USE CONSTITUTE LESS THAN 5% OF CALLS MADE
SAVE MILEAGE & TIME WHEN LOOKING FOR NEEDED ITEMS AND SERVICE
PERMITS MORE PRODUCTIVE DAILY ACTIVITY, SAVES ENERGY, CUT INEFFICIENCY

USE = EMERGENCY:
ACCESS TO EMERGENCY SERVICES
IN CASE OF FIRE HOUSE WOULD BURN DOWN BEFORE WE COULD GET HELP
EMERGENCY SERVICES/HELP
CAN KEEP IN TOUCH WITH AGED PEOPLE, MOTHER IS 86 ALSO LETS YOU STAY INTOUCH
BECAUSE IT IS QUICK
COMMUNICATING LOCALLY WITH FRIENDS AND SOCIAL ACQUAINTANCES IS QUICKER
DEPEND ON PHONE DURING EMERGENCY SITUATIONS
TIME SAVING FOR EMERGENCIES
ACCESS TO EMERGENCY SERVICES

USE = SOCIAL REASONS:
FOR FOREIGN TELEPHONE CALLS, USE PHONE VERY FREQUENTLY
TO KEEP IN CONTACT AT ANY TIME
CONVENIENCE AND TIME
LARGE DISTANCE SEPARATIONS MAKE SOME FACE TO FACE CONTACTS INFREQUENT
MEANS OF ARRANGING MEETINGS, SOCIAL EVENTS
SAME AS 2-3B
TEENAGERS CONSIDER THIS VERY IMPORTANT
CAN CALL FRIENDS AND FAMILY WITHOUT GOING OUTSIDE
INPORTANT FOR ONGOING CONTACT
MAINTENANCE OF FAMILY TIES AND FRIENDSHIPS IS A HIGH PRIORITY DUE TO DISTAN
FOR ASSISTANCE AND PLEASURE
WE PARTICIPATE IN MANY COMMUNITY FUNCTIONS SO THIS SERVICE IS VALUABLE
ABILITY TO CALL FIRENDS OR RELATIVES RATHER THAN GO OUT TO SEE
DONT TALK ON THE PHONE SOCIALLY VERY MUCH, COST OF LONG DISTANCE CALLS
MAINTAIN CONTACT, KEEP UP ON THE NEWS, ARRANGE SOCIAL ACTIVITIES
PHNE IS GOOD SOCIAL CONTACT & ALLEVIATES BOREDOM IN COLD WINTER

USE = CONTACT WITH BUSINESS:
HOW IS ONE TO OBTAIN SERVICES OTHERWISE?
CALLS ARE MADE & RECEIVED ABOUT BUSINESS MATTERS AFTER BUSINESS HOURS
THIS IS WHAT WE USE IT SECONDARILY FOR
IN MY JOB,BUSINESS GOES ON AFTER OFFICE HOURS (EDUCATION ADMIN)
AFTER HOURS USE FOR BUSINESS
IMPORTANT TO GET INFO. PRIOR TO TRAVELLING TO COMMUNITIES TO BUY
MAKE SOME BUSINESS CONTACTS FROM HOME, NOT ALL
DOCTOR, DENTIST, HOSPITAL AND SCHOOL IS IN BEAVERLODGE
CAN CALL FRIENDS AND FAMILY WITHOUT GOING OUTSIDE
MY POSITION AS AN EMERGENCY PLANNING OFFICER
OUR FAMILY IS VERY ACTIVE IN THE COMMUNITY AND MAKES A HIGH # OF CALLS
WE ARE A PUBLIC SERVICE BUSINESS
YOU DON'T HAVE TO DRIVE 60 MILES TO GET AN APPOINTMENT TO GET CAR FIXED
SAME AS ABOVE

2-3c SECOND MOST IMPORTANT TELEPHONE USE (con't)

BUSINESS OFTEN REQUIRES ACCESSABILITY 24 HRS/DAY FOR EMERGENCIES
CONTACT WITH BUSINESSES E.G. DOCTOR'S APPOINTMENTS, CAR REPAIRS, ETC.
FAMILY & SOCIAL MATTERS FIRST PRIORITY, BUSINESS ALSO BUT SECONDARY TO FAM.
I AM IN INSURANCE & REAL ESTATE & GET MANY CALLS AT HOME
SOME BUSINESS IS CARRIED OUT IN THE RESIDENT
ITS A SMALL COMMUNITY, IF WE DID NOT HAVE PHONE PEOPLE COULD STILL CONTACT
CONVENIENCE FOR CONTACT WITH BUSINESSES AND SERVICES IN THE COMMUNITY
SCHEDULE APPOINTMENTS - QUICK COMMUNICATIONS
NO DOCTORS IN HAMLET SO NEED TO ARANGE APPOINTMENTS BY PHONE

USE = DISTANCE EDUCATION:

USE = FAMILY REASONS:
FOR FOREIGN TELEPHONE CALLS, USE PHONE VERY FREQUENTLY
HAS A SON WHO LIVES IN EDMONTON
AGAIN, TO KEEP IN CONTACT
PARENTS ARE SICK AND LIKE TO KEEP IN TOUCH WITH THEM CONSTANTLY
MAINTAIN CLOSE TIES WITH A LARGE FAMILY BY TELEPHONE
COMMUNICATION WITH FAR AWAY FAMILY MEMBERS
KEEPS ME WITHIN REACH OF MY FAMILY
SELF EVIDENT
FAMILY LIVES IN OTHER PARTS OF THE COUNTRY AND I DISLIKE WRITING
DONT TALK ON THE PHONE SOCIALLY VERY MUCH, COST OF LONG DISTANCE CALLS
FAMILY MEMBERS LIVE IN DIFFERENT AREAS THROUGHOUT PROVIDE AND LIKE TO CALL
LARGE FAMILY AND THEY'RE ALL OVER CANADA
FAMILY REASONS: SELF EXPLANATORY
CARRYING OUT OUR BUSINESS, ALL OPERATIONS ARE COMPUTER
WE HAVE MANY RELATIVES ON BOTH SIDES OF FAMILY
TO BE ABLE TO CONTACT FAMILY AND SIGNIFICANT OTHERS ON A REGULAR BASIS

USE = OTHER REASON(S):
CONVENIENCE AND TIME
CONTACT WITH OTHER PEOPLE IN ORDER TO RELAY MESSAGES, OBTAIN INFO. & COMMUN

2-4. TYPE OF TELEPHONE SERVICE

INDIVIDUAL LINE = 72
FOUR PARTY LINE = 11
MORE THAN FOUR = 0
DO NOT KNOW = 24

2-5a $100 SERVICE IMPROVEMENT ALLOCATION

ALLOCATION	TOTAL	PERCENT
FEWER PARTIES	793.00	8.52
LARGER CALL AREA	2293.00	24.65
MONTHLY COST	825.00	8.87
LOWER LONG DIST.	3291.00	35.38
EMERGENCY SERVICE	849.00	9.12
COMPUTER SERVICE	664.00	7.13
LOWER INSTALLAT.	585.00	6.29

THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT (#) : 0
SOME OF THE ABOVE SERVICES REQUIRE IMPROVEMENT (#): 108

2-5b LARGEST IMPROVEMENT

SELF EXPLANATORY
LOWER LONG DISTANCE RATES & INCREASE THE AREA FOR TOLL FREE CALLS
THE FIRST 3 ARE THE MOST IMPORTANT, IT IS EASIER TO PHONE IN OR OUT
LESSEN THE PARTY LINE TO 2/LINE RESTRICT PHONE USAGE, LIMIT TIME OF CALLS
TOLL FREE CALLING FOR A LARGER AREA
NONE
WOULD LIKE A PRIVATE LINE TO FARMS AT A MUCH LOWER COST
LOWER THE COST
HAVE INDIVIDUAL LINES INSTEAD OF PARTY LINES TO EVERY HOUSEHOLD
LOWER LONG DISTANCE COSTS IN WESTERN CANADA
WE ARE SEVERAL SMALL COMMUNITIES AND DEAL TOGETHER, PHONE IS VERY HANDY
PERHAPS LOWER RATES TO THE NEXT MAJOR CENTER OF BUSINESS (FT. MCMURRAY)>
ACCESS TO MORE REASONABLY PRICES SERVICE IS ESSENTIAL
LOWER DAYTIME & OFF HOURS RATED TO EDM, GR. PR., MY OWN SERVICE IS GOOD
REDUCE INITIAL PER MINUTE CHARGE, CALL OVERSEAS & NEED TO PLAN
LESS MONEY OUT OF MY POCKET
TOLL FREE CALLING WITHIN THE COUNTY OF GRANDE PRAIRIE
SELF EXPLANATORY
I FIND LONG DISTANCE CHARGES FAIR, BUT NO FAULT WITH ANY OTHER AREAS
DIVIDE ALTA REGIONALLY BY MAJOR SERVICE CENTRE AND MAKE EACH REGION PART
CATEGORY IS SELF-EXPLANATORY
LARGER AREA CONSIDERED LOCAL
MORE PRIVATE LINES
ACCESS WITHOUT LONG DISTANCE CHARGES TO MORE OF THE SMALL COMMUNITIES
THAT KEG RIVER BE LINKED TO MANNING ALBERTA
SEE 1-3B
RURAL AREAS SHOULD NOT BE PANALIZED
LINE RENTAL FOR PRIVATE LINE, TOUCH TONE WOULD BE REDUCED
SELF EXPLANATORY
PRESENTLY PARTIES ARE ON A SINGLE LINE WHERE MULTIPLE UNUSED LINE EXIST
LARGER AREA
AS ABOVE

2-5b LARGEST IMPROVEMENT (con't)

TOLL FREE TO BEAVERLODGE, B'LODGE TO GR. PR. IS FREE BUT BYPASSES WEMBLEY
LOWER LONG DISTANCE CHARGES TO THE CLOSEST MAJOR CITY
EMERGENCY REPAIR SERVICE ON WEEKEND
MOST RELATIVES ARE SCATTERED IN OTHER PROVINCES & COUNTRIES
IF WE WERE TO ACCESS A COMPUTER LINE BETWEEN SCHOOLS, COSTS MAY BE EXCESSIV
SINGLE LINE SERVICE REDUCES PROBLEMS IN ACCESSING EMERGENCY SERVICES
WOULD LIKE TO CALL CLOSEST NEIGHBOURING COMMUNITY WITH LONG DISTANCE CHARGE
TOLL FREE WITHIN A RADIUS INCLUDING BONNYVILLE
THERE SHOULD BE ONE NUMBER FOR EMERGENCIES AND PEOPLE SHOULD HAVE ACCESS
I WOULD LIKE MORE HOURS FOR LOW COST CALLING, SAY PERHAPS FROM 6 TO 12 MIDN
LOWER COST OF INSTALLATION
ONE COMMON EMERGENCY NUMBER
LONG DISTANCE LINE CHARGE TO ALL CENTERS EITHER REDUCED OR LOCAL CALLS TO I
LOWER RATES
NORTHERN COMMUNITIES ALL OUTGOING/INCOMING CALLS ARE LONG DISTANCE
ONLY ONE LINE SERVICE BE AVAILABLE WITHOUT EXTRA COSTS
ELIMINATE MULTIPLE PARTY LINES
NORTHERN PEACE RIVER BLOCK ALL TOLL FREE
THERE SHOULD BE ONLY ONE INDIVIDUAL PER LINE
SEE 1-3C
TOLL FREE SERVICE TO BONNYVILLE
DO AWAY WITH THE PARTY LINES
LOWER LONG DISTANCE TOLL CHARGES
ALL ALBERTA OR AT LEAST TO EDMONTON
BASIC COST SAVING - THE SERVICE IS USED EXTENSIVELY
LONG DISTANCE RATES ARE TOO EXPENSIVE
ALL CONNECTED TO ONE PLACE FOR USE
LARGER AREA TO INCLUDE COMMERCIAL CENTRE CLOSEST TO WHERE YOU LIVE
PRIVATE LINES AT REDUCED COST
I WOULD LIKE THE SERVICE TO INCLUDE BONNYVILLE & VERMILION INCREASING AREA
SUBJECT TO HIGHER COSTS BECAUSE OF ISOLATION & DISTANCE FROM FAMILY
LONG DISTANCE CHARGES ARE COSTLY TO BUSINESS
NORMAL LONG DISTANCE CHARGES PER MONTH $125, LOWER TARIFF WOULD SAVE ME $$
WE ARE IN THE CONTY OF GR. PR. & I FEEL IT SHOULD BE TOLL FREE
LOWER LONG DISTANCE CHARGE
SERVICE IS OK, JUST REDUCE THE COSTS
LARGER CALLING AREA WITHOUT LONG DISTANCE
INCLUDE BONNYVILLE INTO THE C.L. , G.C., MEDLEY TOLL FREE AREA
PHNES THAT CAN BE LTD. FROM MAKING LONG DISTANCE CALLS
LONG DISTANCE PHONE CALLS ARE ESSENTIAL TO NORTHERN REMOTE INHABITANTS
LESS COST TO NEAREST LARGE SERVICE CENTRE EG EDMONTON & GRANDE PRAIRIE
SHOULD HAVE A 50 MILE RADIUS ON LOCAL CALLS
RCMP FORESTRY & HAVE TO PAY EXTRA FOR TAXED SERVICES
WANT NO PARTY LINE
FAMILY CALLS ARE ATHABASCA
ACCESSING COMPUTER
ACCESS TO A DATAPAC LINE IN THE LOCAL CALLING AREA
AT LEAST TO H-P AND S-L SHOULD NOT BE LONG DISTANCE
ONE NUMBER IN ALL TOWNS FOR EMERGENCY SERVICES I.E. 911 SYSTEM
COST OF LIVING OR DOING BUSINESS HIGHER IN NORTH DUE TO AGT RATES
LOWER RATES OR ELIMINATE RATES OR STANDARD RATE COMMON THROUGHOUT PROVINCE
CUT DOWN OR CUT OUT LONG DISTANCE CHARGES FOR EDUCATION TELECONFERENCING
NO MONTHLY CHARGE FOR FIRST OUTLET/MINIMAL CHARGE FOR OTHER OUTLETS
LOWER INSTALLATION COSTS AND MONTHLY CHARGES

2-5c SECOND LARGEST IMPROVEMENT

LINES CAPABLE OF HANDLING 2400 BAUD RATE
ELIMINATE LONG DISTANCE TOLL CHARGE TO ADJACENT MUNICIPALITIES
TRAVEL IS FASTER THAN IT USED TO BE, THEREFORE THE SHOPPING AREA IS LARGER
REDUCED COSTS PERIOD
MORE ACCESS
NONE
4 PEOPLE ON ONE LINE IS TOO MANY, MAXIMUM SHOULD BE 2
MORE MUNICIPALITIES INCLUDED IN THE TOLL FREE AREAS
UNSURE, RECOGNIZES TELEPHONES ARE A BUSINESS TOO
LESS EXPENSE ON LONG DISTANCE CALLS
FREE CALLING IN A 40 MILE RADIUS, NOT JUST TO ONE TOWN
PEOPLE WOULD CALL MORE OFTEN
MORE PEOPLE WILL REQUIRE HOOK UP AND ACCESS TO COMPUTER SERVICES
ON A PARTY LINE SO USING MY COMPUTER ON LINE ANNOYS NEIGHBOURS
LESS MONEY OUT OF MY POCKET
REALIZE THAT LARGER TOLL FREE AREA WOULD JPROPABLY RESULT IN HIGHER MONTHLY
SELF EXPLANATORY
THERE WAS NOTHING ELSE NEEDED SO REDUCING INSTALLATION COSTS WOULD GET $25
N/A
CATEGORY IS SELF-EXPLANATORY
MOST OF MAY CALLS ARE LONG DISTANCE - WOULD LIKE A LOWER COST
ONE NUMBER FOR EMERGENCY SERVICES
I WOULD LIKE TO SEE ALL PRIVATE LINES
CALLS TO TOWNS WITHIN 25-30 MILE RADIUS SHOULD BE FREE
PAY FLAT RATE OF $250 + $/1/4 MILE + RENTAL, IF EVERYONE HAS ITS CHEAPER
LONG DISTANCE RATE CAUSE MY PHONE BILL TO BE VERY HIGH AT TIME
LOWER COST TO IMMEDIATE AREA
LOWER CHARGES
LARGER AREA WE CAN CALL WITHOUT LONG DISTANCE CHARGE
I AM NOT FAMILIAR WITH THE ADMIN. OR ELECTRONIC EFFICIENCY OF THE SYSTEM
INCREASE THE AREA
NO LONG DISTANCE FROM VALLEYVIEW TO FOX CREEK AND DEBOLD
INDIVIDUAL COSTS ARE FAR TO HIGH TO RURAL RESIDENTS
MAJORITY OF CALLS ARE LONG DISTANCE, THEREFORE SHOULD BE REDUCED
CLEAR LINES SO THAT DATA CAN BE TRANSMITTED LINES USUALLY ARE NOT CLEAR
ALTHOUGH IT DOESN'T PERTAIN TO ME I KNOW THAT MANY PEOPLE ON PARTY LINE ARE
MONTHLY COST SHOULD BE ONLY FOR HAVING THE SERVICE NOT FOR THE # OF PHONES
CALLS SHOULD BE TOLL FREE TO AT LEAST WHERE RESIDENTS DO THE BULK OF BUSINE
N/A SELF EXPLANATORY
NCLUDE REGIONAL AREAS & AREAS OUTSIDE ESTABLISHED AS LONG DISTANCE FROM A C
LONG DISTANCE COSTS ARE VERY HIGH, FREE ACCESS CONCERN EMERGENCY SERVICES
THESE SERVICES BE IMPLEMENTED A.S.A.P.
SEE 1-3C
LOCAL AVAILABILITY AT NO COST
INCREASED USE OF COMPUTERS AND NETWORKING SHOULD BE RECOGNIZED
ACCESS TO SAME NUMBER OF PEOPLE TOLL FREE THAT OTHER ALBERTAN'S HAVE
ON RURAL LINES, ONLY 2, OR BETTER STILL, PRIVATE
MANY CALLS ARE MADE TO GRANDE PRAIRIE AND EDMONTON
SAME AS ABOVE
I BELIEVE THE RATES ARE TOO HIGH
ALL GOODS & SUPPLIES FROM SOUTHERN ALTA SO THEY SHOULD SUBSIDIZE PHONES
PARTY LINES ARE OUTDATED AND ANNOYIN
NO SPECIFIC IMPROVEMENT
MORE ISOLATED YOU ARE, MORE IT COSTS TO DO BUSINESS, WE ARE PENALIZED
SAME AS ABOVE

2-5c SECOND LARGEST IMPROVEMENT (con't)

REDUCTION OF PARTY LINES TO PROVIDE BETTER ACCESS WHEN HAVING TO MAKE APPTS
ALLOW TWO INTO A HOME, ONE FOR COMPUTER, ONE FOR OTHER CALLS
LOWER COST FOR PRIVATE LINES, NOW PRIVATE LINES ARE TOO EXPENSIVE
WOULD LIKE TO BE ABLE TO CALL OTHER CITIES IN ALTA AT A LOWER COST
ALLOW NO MORE THAN 4 LINES, RENT ALL 4 LINES
HUSBAND: CLEANER LINES, LESS STATIC, GM OF LOCAL COOP, SELLS COMPUTERS
WANT DATAPAC ACCESS TO AU
DEGREE BY LONG DISTANCE REVENUES SUPPORT LOCAL SERVICE SHOULD BE REDUCED
MONEY ON CRUISE MISSILE SHOULD BE SPENT ON IMPROVING COMMUNICATION SERVICES
CALL TOLL FREE TO PEACE RIVER, HIGH PRAIRIE, ALL REGIONS IN BETWEEN
AGT LINES MUST BE IMPROVED TO CARRY A LARGER VOLUME OF COMPUTER TRAFFIC
INCREASED AREA WOULD LOWER TELEPHONE LONG DISTANCE CHARGES
CUT DOWN RATE FOR DATA TRANSMISSION SO SMALL COMMUNITIES CAN USE SERVICES
LOWER LONG DISTANCE RATES FOR FIRST 3 MINUTES
LOWER INSTALLATION COSTS AND MONTHLY CHARGES

2-6. MONTHLY TELEPHONE IMPROVEMENT PAYMENTS

$0	=	29
$1-$5	=	10
$6-$10	=	8
$11-$20	=	2
$21-$35	=	0
$36+	=	0
Not Indicated	=	59

2-7. HOW THE COST OF TELEPHONE SERVICE COULD BE REDUCED

NO IDEA
INCREASE IN RATES TO BE SPREAD EVENLY, DON'T PENALIZE NORTHERNERS ONLY
I DON'T KNOW
NOT SURE BUT THERE MUST BE SOME METHODS
EQUIPMENT ON STANDBY WHEN INSTALLING LINES
GOVERNMENT SUBSITY
INCREASE MONTHLY RENTS, ADD MORE MUNICIPALITIES
INTERNAL EFFICIENCY, NEW EQUIPMENT, NO COMPANY IS ABOVE LOOKING AT ITS
ALLAOW OPEN COMPETITION OF COMPANIES
IF COSTS WERE LESS, POSSIBLY MORE PEOPLE WOULD INSTALL TELEPHONES
ONLY THROUGH POPULATION & USER INCREASES
BY STREAMLINING AGT (OVERSTAFFED IN UPPER MGMT), COMPUTERS FOR PRIVATE
NEW RATE STRUCTURE, RATE INCREASES WITH LENGTH OF CALL, COMMON RATE
LOWER THE BASE RENTAL CHARGE
COMPETITION, LESS MONOPOLY
MAKE SURE ALL PEOPLE MAKING LONG DISTANCE CALLS PREPAY THEM BY PHONE
I DON'T KNOW, APPALICATION OF NEW TECHNOLOGY WOULD REDUCE CAPITAL COST
SEE 2-5B
LO KNOWLEDGE
CHARGE SOUTHERN POPULATION A LITTLE MORE AND EQUALIZE
I DON'T THINK PRESENT COSTS ARE OUT OF LINE
I HAVE SEEN 6 REPAIR MEN AT ONE SITE WITH SIX TRUCKS
CHARGE FOR 1 MINUTE ONLY ON LONG DISTANCE CALLS, THIS IS DONE ON INTER
COST SHOULD BE STANDARDIZED THROUGHOUT PROVINCE
CONTRACT OUT INSTALLATION OF LINE INSTALLATION
SUBSIDIZED BY THE GOVT, LOTS OF NATURAL GAS REVENUE HERE, KEEP IT HERE
SAME REPLY AS 5(C)

2-7. HOW THE COST OF TELEPHONE SERVICE COULD BE REDUCED (con't)

PROBABLY COULDN'T DUE TO DISTANCES BETWEEN CENTERS
EQUALIZE COSTS THROUGHOUT THE PROVINCE
UNKNOWN
NO IDEA
MORE EFFICIENT USE OF STAFF, THEY DON'T APPEAR TO BE BUSY
IF RATES REDUCED MORE PEOPLE WILL USE LONG DISTANCE, INCREASING VOLUME
I DO NOT KNOW
REDUCE ALL TOLL CHARGES, REDUCE LONG DISTANCE TOLLS BY ENTRALIZING CAL
AGT BECOME MORE EFFICIENT IN LABOR COSTS
INCREASED PROVINCIAL GOV'T FINANCIAL SUPPORT
UTILIZE NEW TECHNOLOGY
FEWER SERVICE PEOPLE & VEHICLE EXPENSES
LOWER YOUR PROFIT, LOWER NON ESSENTIAL SERVICES, HERITAGE TRUST SUPP.
GRANTS SHOULD BE AVAILABLE TO SCHOOL DISTRICTS & FAMILIES
THE ADVERTISERS SHOULD PAY MORE
BY CONTRACTING OUT THE INSTALLATION OF THE UNDERGROUND LINES
IMPROVED EFFICIENCY IN MAINTENANCE AND INSTALLATIONS
ONLY BY GOVERNMENT SUBSIDY
SOME WAY TO CONTACT ALL COMMUNITY MEMBERS BY SHORT WAVE
USING THE OLDEST RATHER THAN UPDATED MATERIALS THROUGHOUT THE SYSTEM
DUE TO DISTANCE PROVINCIAL GOV'T CONSIDER EXTRA COSTS TO NORTHERNERS
NO KNOWING HOW THE MONEY IS SPENT I CANNOT MAKE ANY SUGGESTIONS
TAX SOUTHERN ALBERTANS WHO SUPPLY OUR GOODS AND SUPPLIES
BETTER ARRANGEMENT
CURRENT SERVICE & RATES ACCEPTABLE
PRIVATE AND GOV'T RUN SERVICES AND BUSINESS PAYING MORE
USE OF MICROWAVE TOWERS
UNSURE, REDUCE VIA BETTER MGMT, COST-EFFICIENT, NEW EQUIPMENT
SEE 2-5b
DON'T KNOW
COST SHOULD COME FROM PROVINCIAL FUNDS & INDIVIDUAL COMPANIES
REORGANIZE TELEPHONE DISTRICTS FOR BETTER SERVICE
NO IDEA
RITE TYPE PHONE $, DATAPAC COST OF USE NOT LONG DISTANCE
INSTALLAITON COSTS AVERAGED ACROSS THE PROVINCE,
DON'T SPEND SO MUCH MONEY ON DESTRUCTIVE PROGRAMS
GOVERNMENT GRANTS FOR EMERGENCY SYSTEM
LONG DISTANCE RATES SHOULD BE MARKET DETERMINED & RATES SUBSIDIZED
EQUALIZE RATES THROUGHOUT THE PROVINCE, SUCH AS IS DONE WITH LIQUOR
USE AN EQUALIZATION FORMULA THAT WOULD TAKE INTO ACCOUNT ACCESS
PRIVATE OWNERSHIP OF ALL TELEPHONE APPAREL
EQUALIZED PAYMENT THROUGHOUT THE PROVINCE, DEVELOP NORTH WITH REVENUES

2-8. SERVED BY REGIONAL INFORMATION TELEPHONE ENQUIRIES

YES = 66
NO = 16
DON'T KNOW = 22

QUESTIONNAIRE ANALYSIS
SECTION THREE - TELEVISION

3-1. DO YOU OWN A TELEVISION SET?

YES = 101
NO = 2
Not Indicated = 5

3-2. IF YOU DO NOT OWN A TV - INDICATE WHY NOT

NOT INTERESTED	1
TV IS TOO EXPENSIVE	1
RECEPTION EQUIPMENT	0
POOR RECEPTION	0
CHOICE OF STATIONS	1
NONE IN OWN LANGUAGE	0
CANNOT WATCH/HEAR	0

3-3a. WHAT IS YOUR TV MAINLY USED FOR?

	-------ORDER OF IMPROVEMENT------							NOT
--TELEVISION USES--	1ST	2ND	3RD	4TH	5TH	6TH	7TH	INDICATED
ENTERTAINMENT	52	27	10	1	0	1	1	16
EDUCATION - CHILD	5	7	20	3	0	0	0	73
EDUCATION - ADULT	1	13	18	10	0	1	0	65
INFORMATION	36	46	3	2	1	0	0	18
KEEP ME COMPANY	1	1	6	2	2	0	1	95
HANDICAPPED	1	0	0	0	1	0	0	106
DO NOT WATCH TV	1	0	0	0	0	0	1	106
OTHER	0	0	0	0	0	0	0	108

OTHER AREAS (specified):
14

3-3b. FIRST MOST IMPORTANT IMPROVEMENTS

AREA = ENTERTAINMENT:

MORE CANADIAN CONTENT SOMETHING THAT A FARM COMMUNITY COULD RELATE TO
WOULD LIKE TO SEE MORE FAMILY PROGRAMS & COMEDY, LESS VIOLENCE & SEX ,
CONTROL ADVERTISING, MORE BRITISH TV (QUALITY), CDN CONTENT MUST COMPE
MORE FAMILY-ORIENTED SHOWS & FAMILY TYPE MOVIES
MORE MOVIES & MINISERIES, LESS SITCOMS, MORE DRAMAS, LESS COP SHOWS
LESS DULL AND UNIMAGINATIVE MOTHER CORPORATION PROGRAMMING
LESS SPORTS
MORE CDN CONTENT IN PROGRAMS - LESS VIOLENCE, PORTRAYAL OF DEVIANT BEH
I WOULD LIKE MOST OF ALL TO HAVE AN EDUCATION CHANNEL "ACCESS"
MORE SPORTS, MORE MOVIES, LESS MUSIC VIDEOS
MORE CHANNELS ETV
LESS CANADIAN CONTENT OR AN IMPORVEMENT IN THE ENTERTAINMENT & TECHNIC
IF YOU DO NOT HAVE CALBE OR SATELLITE YOU ONLY RECEIVE CBC
NO SUGGESTIONS
ABILITY TO RECEIVE UNSCRAMBLED TV SIGNAL FROM U.S.
MORE FAMILY & KIDS SHOWS, LESS VIOLENCE
ACCES TO MORE STATIONS = VARIETY
MORE CHILDRENS SHOWS
A MINIMUM OF THREE CANADIAN CHANNELS SO SELECTION CAN BE OBTAINED
QUALITY OF PROGRAMS
MORE SELECTION OF PROGRAMS
MORE CHANNEL SELECTIONS
LOCAL ENTERTAINMENT SCENE, ACCESS TO AMERICAN ENTERTAINMENT
UNDER ENTERTAINMENT MORE U.S. OUTLETS. CANADIAN COUNTENT IS LOUSY
MORE CANADIAN CHANNELS AND BETTER RECEPTION
MORE WHOLESOME PROGRAMMING INSEAD OF HEAVY METAL OR JUNK SHOWS
NONE
MORE VARIETY
MORE FAMILY ORIENTED PROGRAMS ON CBC
I WOULD LIKE TO SEE LESS VIOLENCE
RECEIVE MORE VARIETY OF CANADIAN CONTENT PROGRAMS AND SPORTS,
MORE FREEDOM OF CHOICE ON VIEWING CONTENT
FEEL THAT CDN CONTENT IS NOT AS NECESSARY AS WE ARE LEAD TO BELIEVE
SATISFACTORY
LESS OF THE NON FUNNY SITCOMS, LESS VIOLENCE, LESS SEX
MORE PUBLIC CHANNELS
AVAILABILITY OF MORE CHANNELS
LESS AMERICAN VIOLENT FANTASYS, MORE CANADIAN INPUT, LOCAL PROGRAMMING
ADDITIONAL NETWORK SELECTIONS
HIGHER GRADE OF DRAMA PROGRAMS, MORE PBS, PARTICULARLY BRITISH
NO IMPROVEMENTS BELIEVE WE ARE WELL SERVED
ADULT & CHILD EDUCATIONAL CHANNEL
MORE SELECTION
LOCAL CABLE CO. SHOULD BE ALLOWED TO CARRY A BROAD SELECTION
LESS VIOLENCE & CRIME RELATED SERIES OR MOVIES, MORE MORALS & VALUES
MORE CANADIAN PROGRAMMING, A SECOND CHANNEL

AREA = EDUCATION FOR CHILDREN:

MORE PROGRAMS, CHANNELS FOR CHILDREN WITH CURRENT EVENTS & REMEDIAL
A VARIETY OF STATIONS OR MORE STATIONS
EDUCATIONAL PROGRAMING IE SESAME STREET WHICH ISNT DEPENDENT ON CABLE
WE NOW HAVE A DISH TO OBTAIN ACCESS SIGNALS, ALSO ON CABLE FOR FEE/MO.
ACCESS TO PROGRAMS THAT HAVE BEEN ON PUBLIC & PAY TV

AREA = EDUCATION FOR ADULTS:

NO SPECIFICS

3-3b. FIRST MOST IMPORTANT IMPROVEMENTS (con't)

AREA = INFORMATION:
- MORE DETAILED PROGRAMS, IE WS, CANADA AM, ETC.
- MORE PROGRAMS, CHANNELS FOR CHILDREN WITH CURRENT EVENTS & REMEDIAL
- OK
- CONTINUOUS NEWS IN PRINT FORM ON LOCAL CHANNEL 7 (CABLEVISION)
- WOULD BE INTERESTED IN THE PBS PROGRAMMING IF WE COULD GET THE CHANNEL
- LONGER NEWS PROGRAMS WITH EXPANDED PROVINCIAL, NATIONAL AND INTERNATIO
- A SECOND CHANNEL SO AS TO GET A SECOND OPINION
- NEWS ARE GOOD AS A WHOLE
- QUALITY OF RECEPTION
- ONE MORE CHANNEL OF NATIONAL NEWS WOULD BE GOOD ONLY CBC AVAILABLE
- NONE
- MORE CONTROL OVER INCIDENTS OF VIOLENCE, PROFANITY, NEED TO EXERCISE
- MORE & BETTER PROGRAMMING
- NONE
- I WOULD LIKE TO SEE A NATIONAL COVERAGE OF NEWS AT 6:00 PM
- I WOULD LIKE TO SEE MORE TIME DEVOTED TO DOCUMENTARIES
- N/A
- MORE LOCAL NEWS
- IT IS GOOD NOW
- POSITIVE AND DEVELOPMENTAL NEWS
- UNDER ENTERTAINMENT MORE U.S. OUTLETS. CANADIAN COUNTENT IS LOUSY
- MORE NORTHERN NEWS
- MORE LOCAL NEWS
- MORE AREA NEWS
- BETTER WEATHER SATELLITE PICTURES AND BETTER REGIONAL REPORTS
- NEWS PROGRAMMING ADEQUATE, MORE BUSINESS NEWS WOULD BE APPRECIATED
- SATISFACTORY
- WEOWN A SATELLITE DISH SO NEED NO IMPROVEMENT
- MORE CHANNELS, CBC IS ONLY INFO. CHOICE, WANT PBS & ACCESS
- MORE WORLD EVENTS, TODAYS NEWS IS LIMITED TO USA, A LITTLE EUROPE
- CANADIANS MUST BE ALLOWED ACCESS TO ALL THE WORLD'S SIGNALS
- NOURLY NEWS BROADCAST OR A NEWS CHANNEL
- MORE LOCAL & REGIONAL INFO., LESS EMPHASIS ON THE GROTESQUE

AREA = TO KEEP ME COMPANY:
- RECEPTION WITHOUT NEEDING CABLE

AREA = HANDICAPPED:
- UNKNOWN

AREA = DO NOT WATCH TV:

AREA = OTHER:

3-3c. SECOND MOST IMPORTANT IMPROVEMENTS

AREA = ENTERTAINMENT:
- IMPROVED QUALITY, BOTH PROGRAMMING AND TECHNICAL
- LESS COMMERCIALS & MORE REALISTIC VIEWING, LESS VIOLENCE, HARDSHIP MOV
- MORE STATIONS SHOULD BE AVAILABLE IN OUR AREA
- LIKE TO SEE A CANADA ONLY ENTERTAINMENT CHANNEL, DRAMA, MUSIC, VARIETY
- LESS "CANADIAN CONTENT"
- A SECOND CHANNEL AS THERE IS TOO MANY RERUNS ON CBC
- LESS VIOLENCE - MORE GOOD MOVIES FOR ENTERTAINMENT, NO MORE MINISERIES
- QUALITY OF RECEPTION
- MORE VARIETY IN SELECTION NOW HAVE 2 CBC AND 2 CTV CHANNELS
- BETTER PROGRAMMING FOR YOUTH AFTER SCHOOL TILL 5:30 PM, EDUCATIONAL
- I WOULD LIKE TO SEE A WIDER VARIETY OF MOVIES
- UNKNOWN
- MORE SPORTING EVENTS THAT ARE CARRIED BY PRIVATE TV BROADCASTING CO.
- PROBABLY CABLE TV
- MORE HUMAN VALUE CONTENT
- BETTER PROGRAMS
- SUPPLY ENTERTAINING TV ELIMINATE CBC'S 4 LETTER WORD GARBAGE
- NIL
- CURRENT SERVICE IS ADEQUATE
- PROVISION OF PROGRAMMING LIKE DISNEY CHANNEL, STUDY LONG TERM EFFECTS
- MORE MOVIES & TALK SHOWS
- CRTC MUST ALLOW CANADIANS TO WATCH ALL CHANNELS FREELY EXCEPT PORNO.

AREA = EDUCATION FOR CHILDREN:
- NONE
- CHILDREN'S CHANNEL, OR GREATER NUMBER OF CHILDREN'S PROGRAMS AT PRIME
- THE PROGRAMMING IS ADEQUATE AT THIS TIME
- MORE EDUCATIONAL PROGRAMS FOR CHILDREN
- MORE FRENCH PROGRAMING
- MORE PROGRAMS, TOP QUALITY EDUCATIONAL PROGRAMS TO ENCOURAGE THINKING
- MORE PUBLIC EDUCATIONAL TV

AREA = EDUCATION FOR ADULTS:
- DEDICATED CHANNELS FOR CONTINUING EDUCATION
- MORE EDUCATIONAL PROGRAMS BEYOND THOSE ON ACCESS
- MORE FRENCH PROGRAMING
- MORE PROGRAMS, TOP QUALITY EDUCATIONAL PROGRAMS TO ENCOURAGE THINKING
- EDUCATIONAL PROGRAMS COULD BE PROVIDED WITH MORE LOCAL CONTENT IN CREE
- MORE IN THE EVENING HOURS
- SATISFACTORY
- SATELLITE: IMPROVE INDIVIDUAL ACCESS E.G. TAX BREAK
- MORE DOCUMENTARY PROGRAMS, LESS HOLLYWOOD STORIES
- DOCUMENTARIES RELATING TO SCIENCE & TECH., SPACE EXPLORATIONS
- REGIONALLY RELEVANT PROGRAMMING, CONTINUING EDUCATION, VIDEO CONFERENC

3-3c. SECOND MOST IMPORTANT IMPROVEMENTS (con't)

AREA = INFORMATION:
I LIKE WHAT IS ON CBC
IT IS SUFFICIENT AS IT IS
LESS PERSONAL EDITORIALIZING, INTERVIEWERS BRING THEIR OWN OPINION
SEEMS TO BE OK, POSSIBLY MORE DOCUMENTARIES
BIGGEST IMPROVEMENT WOULD BE IN EDUCATION, WHICH IS NOT AVAILABLE
NOTHING, GOOD PROGRAMS AT THIS TIME & SUFFICIENT FOR TIME I WATCH TV
NO IMPROVEMENT NECESSARY
MOVIE CHANNEL
NONE
NONE
NONE - I BELIEVE THIS COMPONENT IS EXCELLENT
AS ABOVE
NO SUGGESTIONS
AS ABOVE
NONE
MID DAY IS A GOOD PROGRAM CBC, THE JOURNAL IS ANOTHER, DONT WATCH MOUH
NONE
MORE SELECTION
LOCAL INFORMATION PROGRAMS
MORE CANADIAN CHANNELS AND BETTER RECEPTION
NO CHARGE ACCESS TO,24 HOURS MORE CONSISTENT REBROADCAST QUALITY
NONE
NIL, VERY INFORMATION
NO SPECIFICS
NEWS INFORMATION VERY WELL DONE
WOULD APPRECIATE ANOTHER NEWS SOURCE BESIDES CBC SUCH AS CTV
A CONTINUOUS NEWS CHANNEL
SATISFIED
MORE PUBLIC AFFAIRS, HISTORY, CURRENT AFFAIRS, REMOVE MUCH MUSIC
SELECTION OF MORE CHANNELS
OK
ADDITIONAL NETWORK SELECTIONS
MORE WORLD COVERAGE, MORE FREQUENT TIME SLOTS (LATE NEWS IS TOO LATE)
NO IMPROVEMENTS
LOCAL AND REGIONAL COUNTY NEWS PROGRAM
MEDIA TENDS TO FOCUS TOO MUCH ON CERTAIN EVENTS, REPETITION TOO HIGH
MORE CANADIAN PROGRAMMING, A SECOND CHANNEL

AREA = TO KEEP ME COMPANY:
SATISFACTORY

AREA = HANDICAPPED:

AREA = DO NOT WATCH TV:

AREA = OTHER:

3-4a. CANADIAN TV SERVICES AVAILABLE IN YOUR COMMUNITY

NONE	= 0
CBC	= 93
ITV	= 58
CTV	= 84
ACCESS	= 38
M.MUSIC	= 16
S.CHOICE	= 29
TSN	= 24
OTHER	= 0

OTHERS (Names):

CANCOM PACKAGE
CBC FRENCH
CBXFT (FRENCH)
FRENCH
FRENCH STATION
CHCH
HAMILTON
CHCH TV, QCTV, CBC
CHCH
NASHVILLE, CNN
HBO OCCASIONIALLY
FRENCH STATION
CKSA
HAMILTON
CBC FRENCH NETWORK
CHCH, FRENCH
BCTV (CTV VANCOUVER)
CFRN,CBXFT,CJDC,CHCH
CBC NORTH, CBXFT
CFRN
CBC HAMILTON, MONTRE
FRENCH CBC
COMMUNITY CHANNEL

3-4b U.S. TV SERVICES AVAILABLE

NONE	= 33
ABC	= 41
NBC	= 37
CBS	= 42
PBS	= 23
OTHERS	= 19

OTHERS (Names):

DETROIT
DETROIT
WDIV DETROIT
CNN,WGN,ESPN,CBN,TBS
DONT KNOW-SCRAMBLED
WTBS ATLANTA
DISNEY,TNN,USA NETWK
WBTBS ALTANTA, WGN
DETROIT CABLE
TNN,CBN,WGN,CNN,ESPN
USE, ESPN, CNN, WOR
ESPN/TBS/CNN/USA/
TMC,DIS,WJBK,WXYZ,
CNN

3-4b. U.S. TV SERVICES AVAILABLE (con't)

SATELLITE DISH
TNN
ATLANTA, CHICAGO
CBN,CNN,SGN,MTV,WTBS
ESPN,CNN,CBN,MTV,WGN

3-4c. ADDITIONAL TV STATIONS/PROGRAMS YOU FEEL SHOULD BE AVAILABLE

TSN
ACCESS, ITV, PERHAPS TSN
ITV, FIRST CHOICE/SUPERCHANNEL
??
MORE U.S. SERVICES
COMMUNITY INFORMATION CHANNEL
CHILDREN AND ADULT EDUCATION
PBS,AMERICAN STATIONS, ACCESS
ACCESS, ITV
MOVIE CHANNEL
ACCES
TSN, ESPN, MTV
WOULD LIKE NBC
SUFFICIENT PROGRAMS AVAIL, CONTENT LOUSY
NONE
PBS
EDUCATIONAL TV
NONE
SPOKANE OR SEATTLE CHANNELS
PBS
ANOTHER MOVIE CHANNEL, ITV, 1 NETWORK
ITV IT WOULD BE NICE TO GET AVC, NBC,CBS
ITV, ACCESS
ADEQUATE
MUSIC AND DISNEY CHANNEL
TSN
DISNEY IS BEST CHANNEL & CRTC IS CANCELI
ABC, PBS, NBC, CFRN EDMONTON
CBC FRENCH
LOCAL PROGRAMMING
ITV
ACCESS
MUCH MUSIC FREE LIKE ITS SUPPOSED TO BE
TSN
PBS BUT NO WRESTLING, NO AMERICAN NONSEN
SPOKANE CHANNELS WOULD BE A DEFINITE ASS
NONE
MINIMUM SHOULD BE CBC & ITV
ALL OF 3-4B
ACCESS AND CABLE TO COMMUNITIES
CABLE - SATELLITE
ANY MAJOR U.S. CHANNEL(S)
CABLE
CULTURALLY RELEVANT (CREE)
LOCAL NEWS COVERAGE
MORE EDUCATIONAL PROGRAMS
MORE AMERICAN STATIONS
WTBS ATLANTA, WGN CHICAGO, DISNEY, SHOWT
CANADIAN 24 HOUR NEWS NETWORK
NONE
AEC, CFRN NOT AVAILABLE ON CABLE
NONE
2 CHANNELS NOT MUCH CHOICE, NEED MORE

3-4c. ADDITIONAL TV STATIONS/PROGRAMS YOU FEEL SHOULD BE AVAILABLE (continued)

NONE
FOR OUR WORK ACCESS & LOCAL PROGRAMMING
ITV, MOVIE CHANNEL
THE PROGRAMS SHOWN SHOULD BE FAMILY
CTV, ITV, ACCESS, MUSIC CHANNEL, 1ST CH.
CTV VANCOUVER, MORE EDUCATION CHANNELS
WE ALSO RECEIVE CHICAGO, SHOWTIME
ITV, ACCESS, MOVIE CHANNEL
ALSO WE RECEIVE WDIV, TVS
ARTS & ENT, TSN, NASHVILLE, CNN, BUSINES
ACCESS, PUBLIC BROADCASTING, NATIVE
ITV, ADULT & CHILD EDUCATION, ARTS & CRF
DISNEY CHANNEL
LOCAL
PROVISION OF NETWORKS FREE TO REMOTE ARE
PBS, LESS CONTROL ON CANADIAN CONTENT
NIL
N/A
ACCESS TO A FRENCH CHANNEL
ACCESS/PBS OR SOME EDUCATION CHANNEL
PBS, ACCESS, QUALITY SCOPE
ITV
ACCESS TV, BBC TV & OTHER ENGLISH
FOR COMMUNITY CTV, ITV, SPORTS CHANNEL
ITV,CTV & CBC AS WELL AS US TV
CTV, ACCESS, EDUCATIONAL TV

3-5a. $100 TV SERVICE IMPROVEMENT ALLOCATION

ALLOCATION	TOTAL	PERCENT
EDUCATION PROGRAMMING	2535.00	28.76
LOCAL COMMUNITY PROGRAM	1047.00	11.88
# FRENCH CANADIAN CHANNELS	250.00	2.83
# ENGLISH CANADIAN CHANNEL	401.00	4.55
# AMERICAN CHANNELS	1530.00	17.36
COST OF RECEPTION EQUIPMENT	1120.00	12.70
COST OF CABLE SERVICE	1705.00	19.34
PROGRAM - MOTHER TONGUE	225.00	2.55

THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT (#) : 6

3-5b. LARGEST ALLOCATION

MOST CANADIAN PROGRAMMING IS POOR, U.S. HAS MORE VARIETY, BETTER PROGRAMS
WITH EDUCATIONAL PROGRAMMING CHILDREN LEARN QUICK, IT HELPS THEM IN SCHOOL
IT IS MUCH TOO COSTLY TO ACQUIRE THIS SERVICE DUE TO DISTANCE TO CENTRE
LACK FO CULTURAL ACTIVITIES IN AREA
ENJOY U.S. T.V. PROGRAMS
MORE FAMILY LIFE EDUCATION WOULD BE VERY BENIFICIAL
I FEEL MORE NEEDS TO BE DONE
INCREASE SIGNAL BOOST, ADD A FRENCH TV CHANNEL
WOULD LIKE TO HAVE CABLE IN OUR COMMUNITY
OUR FURTHER EDUCATION SERVICES ARE LTD.,BIGGEST SINGLE NEED IS THIS
ONLY ONE FRENCH CHANNEL AVAIL. AT PRESENT FOR FRANCOPHONE RESIDENTS
WE ARE VERY ISOLATED AND THERE IS LITTLE VARIETY FOR NIGHT COURSES, ETC.
MORE TV CHANNELS AND ACCESS TO GREATER VARIETY OF PROGRAMMING
SPEND ON REDUCED CABLE COST & MORE U.S. T.V. AND/OR ACCESS
CABLE ALLOWS ACCESS TO U.S. CHANNELS, PREFER U.S. CONTENT TO CANADIAN
DID NOT ALLOCATE LARGEST SHARE
EDUCATION SHOULD BE AVAILABLE TO EVERYONE AT ALL TIMES
WE SHOULD BE ENCOURAGING CANADIAN TALENT, PRODUCTION
AT PRESENT THE ONLY EDUCATIONAL PROGRAMS ARE THOSE OCCASSIONALY PRESENTED
IT IS RIDICULOUS TO HAVE TO PAY $150 FOR A CONVERTER TO GET CABLE TV WHEN
ADDITIONAL PROGRAMMING WOULD PROVIDE MORE CHOICE IN VIEWING
MORE OF A NEED FOR THIS TYPE OF PROGRAMMING
WANT MORE SPORTS AND MOVIES
MORE ENTERTAINMENT
MORE ENTERTAINING PROGRAMS PRESENT COST OF PAY TV IS TOO HIGH
SORRY CANT HELP YOU, NO USE ANSWERING AND GUESSING, THAT IS WHY NO ANSWERS
EXTRA ENTERTAINMENT NEWS & COMMUNITY PROGRAMS
SOME LOCAL CHANNELS HAVE POOR RECEPTION, UPGRADING OF TOWERS REQUIRED
WITH MORE EQUIPMENT WE WOULD BE ABLE TO RECEIVE MORE THAN CBC
IMPROVE QUALITY OF PROGRAMMING
MORE PROGRAMMING CHOICES
NEED MORE CHOICE OF PROGRAMS, THEREFORE NEED MORE U.S. STATIONS
WE SHOULD HAVE ACCESS TO MORE NATIONAL NETWORKS LIKE CTV OR GLOBAL,NO CHARG
WE CANNOT GET FRENCH IN THIS AREA, CULTURAL & EDUCATIONAL DEVELOPMENT
TO MAKE MORE SERVICE AVAILABLE WITHOUT CABLE INSTALLATION
COST OF CABLE IS HIGH IN REALTION TO THE QUALITY OF RECEPTION/SERVICE
MORE VARIETY
THERE IS NO EDUCATIONAL PROGRAMMING AVAILABLE
CABLE HERE IS 2-3 TIMES HIGHER THAN ELSEWHERE WITH POOR RECEPTION & SERVICE
REDUCE COST OF CABLE & INCLUDE TSN AND SUPERCHANNEL
TV IS TERRIBLE, KIDS & ADULTS ARE BEING FED STUPIDITIES, IMPROVE QUALITY
I DONT THINK WE NEED TO HAVE FRENCH CHANNELS, ENGLISH IS OUR FIRST LANGUAGE

3-5b. LARGEST ALLOCATION (con't)

TO DEVELOP WIDER RANGE
ONE CHANNEL BEYOND CBC HAS ALREADY COST MANY $100 FOR EQUIPMENT
BETTER QUALITY PROGRAMS
CANADIAN CHANNEL RECEPTION IS POOR
RECEPTION IS POOR IMPROVEMENT ABSOLUTELY NECESSARY
WE SHOULD HAVE MORE CHOICE OF WHAT WE WATCH CANADIAN CONTENT
THERE IS A NEED FOR MORE U.S. CHANNELS WHICH ARE SUPERIOR TO CANADIAN
PROVIDES US WITH MORE VIEWING
TV IS THE MEDIUM THROUGH WHICH YOU REACH MORE PEOPLE TO ENHANCE THE CULTURE
NEED FOR ELECTRONIC MEDIA SERVICES FOR EDUCATION
WE HAVE NO CABLE
BECAUSE AMERICAN NETWORKS HAVE SUPERIOR PROGRAMING TO CANADIAN
MORE CANADIAN CONTENT IN NEWS & PROGRAMMING
TO GET BEST CHANNELS YOU MUST PAY MORE
COSTS CURRENTLY ARE HIGH
CABLE IS TOO EXPENSIVE
REPRESENTS THE ONLY IMPROVEMENT NEEDED
IF CABLE WAS AVAILABLE MORE CHANNELS AVAILABLE THEREFORE AREAS FULFILLED
TO BROADCAST LOCAL ACTIVITIES
THIS IS MORE VALUABLE TO BOTH ADULTS & CHILDREN THAN VIOLENCE, SEX
COMMUNITY IS GROWING & LOCAL PROGRAMMING WOULD BE TERRIFIC
MORE AWARE OF LOCAL HAPPENINGS THAN THE BATTLES IN CITY OF EDMONTON COUNCIL
THERE IS NO EDUCATIONAL TV HERE
BETTER RECEPTION OF CANADIAN STATIONS
SLEF EXPLANATORY, BASICALLY TO BE AT PAR WITH CENTRAL & SOUTH COMMUNITIES
INSUFFICIENT PROGRAMS & CHANNELS
LARGER CHOICE OF MAJOR NETWORKS
UPGRADE CURRENT CABLE INSTALLATION TO AVOID PICTURE & AUDIO LOSS AT TIMES
IT IS NOT AVAILABLE TO US IN OUR HOMES & DEFINITELY SHOULD BE
WANT MORE CHOICE
MONEY AVAILABLE FOR PRODUCTION COSTS SHOULD BE RAISED TO IMPROVE QUALITY
IMPROVE QUALITY WITHIN AREA SERVED & INCREASE PRESENT AREA SERVED
TO FACILITATE CATALOGUING AND RECORDING OF PROGRAMS
IMPORTANT FOR NEWS SHARING, CULTURAL SURVIVAL
EDUCATION PROGRAMS COULD BE IMPROVED
LONG TERM BENEFITS ARE THE GREATER
GET THE ACCESS STATION
GET MORE EDUCATION PROGRAMS, GET ACCESS TO DISTRIBUTIONAL SERVICES
LOCAL MARKET SHOULD ALLOW CANADIAN & AMERICAN SERVICES TO COMPETE
CABLE HOPEFULLY WOULD GET BROADER NEWS VIEWPOINT & MORE EDUCATION PROGRAMS
CABLE TV RATES FOR CANCOM ARE 3 X THAT OF THE SOUTH, OLD PEOPLE CAN'T PAY
CBC PROGRAMS LEAVE MUCH TO BE DESIRED,
MUCH PROGRAMMING IS BROADLY EDUCATIONAL BUT IT NEEDS TO BE FLEXIBLE
CABLE MONTHLY RENTAL RATES ARE TOO EXPENSIVE
MUCH OF THE NEW EDUCATIONAL PROGRAMS AUGMENTED THROUGH ACCESS, WE CAN'T GET

3-5c. SECOND LARGEST ALLOCATION

IT'S NICE TO KNOW WHAT IS HAPPENING CLOSE TO HOME
INCREASED VARIETY
NONE
I HAVE NO OBJECTION TO PROVIDING SOME INCENTIVES TO CABLE COMPANIES
VERY LITTLE ADULT EDUCATION & NO AMERICAN CHANNELS
WOULD LIKE TO SEE MORE EDUCATIONAL PROGRAMMING
PEOPLE ARE SPREAD OUT AND DON'T KNOW WHAT IS GOING ON LOCALLY
INCREASED # OF STATIONS TO SELECT FROM
CRITICAL TO DEVELOP GREATER AWARENESS OF AND ABOUT OUR COMMUNITIES WE LIVE
DID NOT ALLOCATE SECOND LARGEST SHARE
PEOPLE SHOULD KNOW ABOUT THEIR COMMUITY AND THE WAY THEY LIVE
WOULD LIKE TO TAKE SOME UNIV. LEVEL COURSE, LEARN FRENCH AS WELL
CATV IS BUILT IN
SEE 3-5B
COSTS CAN BE STREAMLINED SO THAT CONSUMER DOESN'T BEAR BURDEN
WE HAVE NO REAL EDUCATIONAL CHANNEL
NICE TO HAVE OTHER LANGUAGE
WOULD BE BENIFICIAL TO A NUMBER OF AGENCIES AS EFFECTIVE PUBLIC RELATIONS
FOR THE YOUNGER PEOPLE FOR EDUCATION
IF CABLE IS AVAILABLE & YOU PAY FOR IT YOU SHOULD HAVE MORE CHANNELS
IMPROVE VARIETY OF ENTERTAINMENT AVAILABLE
PRICE OF CABLE IS NOT TOO BAD NOW HOWEVER THE MORE CHANNELS THE HIGHER COST
ONLY CBC IS AVAILABLE AND MORE MONEY SHOULD BE PSENT ON CHILDREN'S PROGRAMS
CULTURAL AND EDUCATIONAL DEVELOPMENT
LOCAL COMMUNITY PROGRAMMING GIVES OPPORTUNITY TO SHARE EXPERTISE, GOOD P.R.
THERE IS NO LOCAL PROGRAMMING AVAILABLE
N/A
MORE CANADIAN CONTENT WOULD GIVE US A CHANCE TO PRESENT MORE OF OUR SUBJECT
A DISH WOULD MAKE RECEPTION MUCH BETTER BUT COST IS TOO HIGH FOR MOST PEOPL
IT WOULD BE CONVENIENT TO REDUCE ANY COST TV OR WHATEVER
GIVE MORE PEOPLE SERVICE
MORE CANADIAN CHANNELS WOULD BE APPRECIATED
GREATER SELECTION SHOULD BE PROVIDED AS FEW OTHER ENTERTAINMENT SERVICES
MORE PROGRAMMNIG SHOULD BE DONE IN THIS AREA FOR CULTURAL VALUE
THERE IS A NEED FOR EDUCATIONAL CHANNELS PLUS ADDITIONAL CHOICE FOR CANADA
NEED MORE EDUCATION CHANNELS
SAME AS ABOVE
SEE ABOVE
CABLE TV IS EXPENSIVE IN SWAN HILLS
COMMUNITY PROGRAMING IS BENEFICIAL AND USUALLY UNDER FUNDED.
NEED MORE COMMUNITY PROGRAMMING
TO EXTEND THIS FOR ALL CITIZENS
SOME SERVICES ARE EXPENSIVE AND NOT ALL MAY AFFORD THESE SERVICES
GIVE THE LOCAL AREA EXPOSURE
IF LARGEST SHARE WAS MET OTHER SHARE WOULD BE NEGLIGIBLE
COST OF CABLE IS TOO HIGH AND WE HAVE NO COMMUNITY SHOWS
GOOD ENTERTAINMENT
NEED A STRONGER SIGNAL, A LOT OF INTERRUPTION IN SERVICE FOR NON CABLE USER
INCREASE THE VARIETY & SELECTION
NIL SERVICE NOW & LOCAL PROGRAMMING CAN BE VERY VALUABLE
CULTURE
NIL
FRENCH TV HAS BENEFITS
AU CHANNEL FOR NORTHERN ALBERTA CHANNEL, LOCAL PROGRAMMING IS LACKING
A SERVICE FOR WHICH WE PAY THROUGH TAXES SHOULD BE AVAILABLE IN ALL ALBERTA
GET A CHOICE & CHANCE TO LEARN SOME THING IN PRIME VIEW TIME
ACCESS TV IS NOT AVAILABLE IN SMALL NORTHERN TOWNS
CBC IS ALREADY TOO HEAVILY SUBSIDIZED, WIDE USE OF THEIR FUNDS IS IN ??
NORTHERN COSTS MAKE SATURATION OF THE AREA ALMOST IMPOSSIBLE
NOT ENOUGH SELECTION
HAVING ONLY ONE CHANNEL LIMITS OUR OPPORTUNITIES FOR INFORMATION

3-6. MONTHLY TELEVISION IMPROVEMENT ALLOCATION

$0	= 24
$1-$5	= 11
$6-$10	= 8
$11-$20	= 8
$21-$35	= 0
$36+	= 0
Not Indicated	= 57

3-7. HOW THE COST OF TELEVISION SERVICE COULD BE REDUCED

DELETE LOCAL BROADCAST AND AND CANADIAN CONTENT REQUIREMENTS
NO IDEA
BY GOVERNMENT GRANTS
COSTS ARE REASONABLE
USE OF SATELLITE
MORE SUBSCRIBERS
MORE COMPETITION, FEWER RESTRICTIONS CONCERNING LICENSING
GOVERNMENT SUBSIDY
DONT KNOW
INCREASED POPULATION, GREATER # OF USERS
HAVE NO IDEA
BY PROVIDING EACH AND EVERY HOME WITH A SATELLITE DISH
ACCESS TO SATELLITE CHANNELS, REDUCED COST OF RECEPTION EQUIPMENT
MORE COMPETITION, LESS MONOPOLY
I PAY NOTHING NOW - COSTS CAN'T BE REDUCED TO ME
I DON'T HAVE ANY IDEA
ALLOW COMMUITY SATELLITE RECEIVERS
NO SUGGESTIONS
TAX BREAK TO TV AND CABLE COMPANIES
A COMMUNITY BASED/OWNED SATELLITE RECEIVE
BEFORE ASKING HOW TO REDUCE THEM, PUT THEM IN IN THE FIRST PLACE
BY HAVING CABLE AVAILABLE TO MORE PEOPLE
SATELLIET REPEATER STATION CENTRALLY LOCATED, DESCRAMBLE ANIK-D1 SATEL
BY NEGOTIATING IN A FREE TRADE ENVIRONMENT FOR DESCRAMBLING EQUIPMENT
CTV & GLOBAL SHOULD BE MADE AVAILABLE ON SATELLITE SO NORTHERNERS GET
I AM NOT FAMILIAR WITH THE ADMIN. OR ELECTRONIC EFFICIENCY OF SERVICE
MORE MONITORING OF CRTC REGULATIONS SO MORE UPFRONT COMMITMENT BY CABL
UNKNOWN
COMPETITION
IF COSTS WERE REDUCED MORE PEOPLE WOULD PAY FOR IT AGAIN VOLUME HIGHER
DO NOT KNOW
SATTELITE TRANSMITTAL OF THE THREE MAJOR NETWORK SIGNALS
USING IMPROVED TECHNOLOGY
PROVINCIAL GOV'T SHOULD PICK UP ALL ADDITIONAL COSTS
SPREAD COSTS OVER ALL TAXPAYERS VIA MUNICIPAL TAXATION
UTILIZE ALBERTA TRUST FUND
GRANT FOR RURAL AREAS IN SERVICE PERSONNEL IN RURAL AREAS
GET MORE USERS
HIGHER WATTAGE IN THE EXISTING SYSTEM SO A LARGER AREA SERVICED
LESS CRTC REGULATION, ALLOW MORE EXTENSIVE USE OF SATELITE DISHES
GOOD SATELLITE DISTRIBUTION NETWORKWITH RENDED DECODERS
DON'T KNOW
NETWORKS (JOINT CENTRALIZED SYSTEMS)
NO IDEA
I HAVE NO IMMEDIATE SOLUTION TO THESE COSTS
FOR THE SERVICES WE RECEIVE WE ARE PAYING ENOUGH
NOT FAMILIAR WITH COSTING BUT SHOULD BE SAME AS FOR PEOPLE IN SOUTH

3-7. HOW THE COST OF T.V. SERVICE COULD BE REDUCED (con't)

MORE FREE ENTERPRISE
DISTANCE BETWEEN CENTRES REQUIRES EACH TOWN TO BE SELF CONTAINED
ALLOW MORE USE OF DISHES & BROADCASTING FROM THESE RECEIVERS
INDIVIDUAL HOUSEHOLD INCREASE OR CONTRIBUTION PLUS PRIVATE MONEY
SEPARATE THE 5 OR 6 PACK, SELECT ONLY THE CHANNELS YOU WANT
USE OF SATELLITE EQUIPMENT
PROVIDE TOWN OWNED CABLE SERVICE OR ELIMINATE PRESENT CO.'S LICENSE
FREE UNLICENSED SATELLITER RECEPTION SUBSIDIZED BY DONATIONS
DRIFTPILE HAS THEIR OWN SATELLITE WITH VERY FEW PROBLEMS,
DON'T KNOW HOW, NO PLACE CHEAPER THAN MANNING FOR TV
TAX BREAK FOR SATELLITE DISH - DESCRAMBLING
REDUCE CRTC ROLE, MAKE CANADIAN SERVICES COMPETE FAIRLY FOR A SHARE
USER PAY IF THEY WANT SERVICE (PROGRAM TYPE DEVELOPMENT)
REDUCE PER HOUSEHOLD CHARGES, FEDERAL EXCISE TAX OF 7% IS APPLIED
EQUALIZE COSTS THROUGHOUT PROVINCE
FIBER OPTICS, MULTIPLEXING
CRTC SHOULD ALLOW MORE COMPETITION BETWEEN SUPPLIERS
WHAT IS THERE TO REDUCE - WE HAVE LITTLE IF ANY SERVICE NOW

- QUESTIONNAIRE ANALYSIS
SECTION FOUR - RADIO

4-1a. WORKING RADIO(S) IN YOUR RESIDENCE?

YES = 101
NO = 0
Not Indicated = 6

4-1b. WHAT TYPES OF RADIOS

# of AM = 101
# of FM = 73
SHORT WAVE = 18

4-2a. WHAT RADIO SERVICES ARE NOW AVAILABLE IN YOUR COMMUNITY

ACCESS = 39
CBC-AM = 71
CBC-FM = 43
CKRA-FM = 12
CHED-AM = 50
LOCAL STATIONS:
CFGP, CJXX
CFCP, CJXX
CKYL
CKYL, CFGP, CJXX
CKYL
CKYL PEACE RIVER
ST. PAUL
CKYL, CJXX, CFGP
CHCL
CHLW
CKYL
CJXX, CFGP
CJOR
CFGP, CJXX, CJDC
CFGP, CJXX, CKYL
CKYL
CJOK, CKYX
CKYL, CFGP
CKYL & GR. PRAIRIE
PEACE RIVER,GR.PRAIR
CFGP,CJXX,CKYL,CFCW
CKYL
CITL, CKSA, CJCA
CFOK WESTLOCK
LW RADIO
CFGP, CJXX
CJYR
YR
CJYR
CJYR
CKYL,CFGP,CJXX,CJDC
CKYL
CKYL
CJYR EDSON
CFGP
PEACE RIVER (OCCASIO
CHCL, CKCW

4-2a. WHAT RADIO SERVICES ARE NOW AVAILABLE IN YOUR COMMUNITY?
(continued)

LW
CKSR
CFCW (WINTER)
CJXX, CFGP
CFGP,CJXX,CKYL
CKYL, CJXX, CFGP
CKYL
CFGP, CJXX
RADIO L.W.
CFCW, CIOK
CKYL
CJOK, KYX-98
CJOK, KYXFM
CKWA, 1210
CKSA
CJOK, CKYX
CKYL
CKYL, CJXX, CFGP
CFOK
CKYL, CJXX, CFGP
CJYR EDSON
CJXX, CFEP
CJXX, CFGP
CHQT,CFRN,CJCA,CISN
CKYL
LAKELAND CFCL
CKYL, CKGP
CFGP, CKYL, CJXX
CJOK, CKYX
PEACE RIVER
CKYL PEACE RIVER
WESTLOCK
CKYL
CKYL,CJXX,CFGP
CKYL,CHGP,CJXX
CKWA
CKYL,CJXX,CJCA
CKWA

OTHER STATIONS:

US & CDN ON CABLE
CKYL, CJDE
SEVERAL IN GR. PRARI
CHFA
CJXX, CFGP
CRCW, CHQT, CFRN
COLD LAKE
CKSA, CFCW
CKSA, CFCW
CKYL
EDMONTON STAIONS
CFGP,CKYL,CJKX,CJDC
CFRN
CHQT, CJCA, CFCW
CKYL
CHQT
PEACE RIVER
CFMI-FM
MONTREAL, NEWFOUNDLA
NONE UNLESS CLEAR
CKYL DEPENDS ON WEAT
CFCW
CFGP
CFRN, CFCW

4-2a. WHAT RADIO SERVICES ARE NOW AVAILABLE IN YOUR COMMUNITY (con't)

CKYL
CFCW,CFRN, EDMONTON
CKYR
CHOT, CFCW, CFRN
CFB COLD LAKE, CHCL
YELLOWKNIFE CBC
EDMONTON
VARIOUS S.W. SERVICE

4-2b. ADDITIONAL RADIO STATIONS/PROGRAMS YOU FEEL SHOULD BE AVAILABLE

MORE CLASSICAL, JAZZ STATIONS & MORE LIGHT MUSIC STATIONS
MORE CULTURAL PROGRAMMING, LESS ROCK AND WESTERN
A SATION FOR HIGH PRAIRIE WOULD BE BEST
FM STATION, WE DO NOT RECEIVE ANY STEREO STATION AT PRESENT
MORE FM STATIONS
NONE
FM/ACCESS READIO
LESS COUNTRY, MORE FM, BETTER SELECTION
LOCAL REBROADCASTER FROM ST. PAUL, WANT FM STATION, WANT OWN STATION
FM GREQUENCY BOOSTED TO REACH OUR AREA
COMMUNITY RADIO
GENERALLY SATISFIED WITH PRESENT SERVICES AND PROGRAMMING
LOCAL BROADCASTING WOULD BE GOOD BUT LIKELY NOT FEASIBLE, BETTER FM
NO COMMENT
FM & FM STEREO
WE HAVE ENOUGH
CBC-AM, CABLE QUALITY OF EDMONTON STATIONS NEEDS TO BE UPGRADED
FM STATIONS OR REBROADCASTING OF FM
FM STATION
CAMROSE, DAWSON CREEK
BETTER RECEPTION
GOOD SERVICE NOW
QUALITY RECEPTION
RADIO SERVICES ARE FINE
CHED
FM
INCREASE FM STATIONS
FM BROADCAST NOT CABLE
BETTER FM, MORE PROGRAMS IN UKRAINIAN
I WOULD LIKE TO SEE RECEPTION IMPROVED SO THAT WE COULD GET EDSON,EDMO
BETTER FM
CHOICE OF PROGRAMS AND RADIO SHOULD INCLUDE MORE THAN THE PRESENT
MORE FM STATIONS
N/A
MORE CHOICE IN STATION SELECTION
MORE FM
CULTURALLY RELEVANT
CONSISTENTLY STRONG RADIO SIGNALS
NONE
MORE VARIETY IN FM
NONE
SHORT WAVE , COMMUNITY RADIO STATION
ADDITIONAL VARIETY PROGRAMMING
NONE
ALMOST ADEQUATE BUT NEED MORE
LOCAL RECEPTION IS GOOD, WE HAVE SOME PROBLEMS WITH EDMONTON STATIONS
FM STATIONS WOULD LIKE TO HAVE STATION THAT PROVIDED WHOLESOME MUSIC
RADIO STATION IN WHITECOURT

4-2b. ADDITIONAL RADIO STATIONS/PROGRAMS YOU FEEL SHOULD BE AVAILABLE (con't)

NONE
I FEEL WE ARE WELL COVERED
SATISFACTORY
NATIVE, LOCAL RADIO, FM
WOULD LIKE TO SEE AN EXTENSION OF FM SERVICES, NONE AT PRESENT
BETTER FM SERVICE, MORE ACCESSIBLE
FM MUSIC STATION, LOCAL PROGRAMS
GOOD FM
NIL
COUNTRY & WESTERN
STRONGER SIGNAL, DO NOT HAVE ANY RECEPTION
ACCESS & MORE SELECTION
FM CAPABILITY - GREATER ACCESS
F.M.
ALL TYPE FOR A GOOD CHOICE
PRIVATELY OWNED FM STEREO STATION
LOCAL RADIO SERVICE
OPPORTUNITY FOR LOCAL/REGIONAL PROGRAMMING IN ENGLISH & CREE
MORE FM STATIONS WITH CONTEMPORARY MUSIC
BROADER RANGE OF REBROADCASTING FOR LCOAL RADIO

4-3a. WHAT IS YOUR RADIO MOST OFTEN USED FOR

	ORDER OF PRIORITY							NOT
RADIO USES	1ST	2ND	3RD	4TH	5TH	6TH	7TH	INDICATED
ENTERTAINMENT	28	41	5	2	0	1	0	31
EDUCATION-CHILD	3	1	6	2	2	0	0	94
EDUCATION-ADULT	3	12	5	4	1	0	0	83
INFORMATION	56	25	4	1	2	0	1	19
KEEP ME COMPANY	3	5	12	4	4	0	0	80
HANDICAPPED	0	0	0	0	1	0	1	106
DO NOT LISTEN	0	0	0	0	0	0	0	108
OTHER USE	0	0	0	0	0	0	0	108

OTHER USES (specified):
WEATHER
DO NOT LISTEN TO RAD

4-3b. FIRST MOST IMPORTANT RADIO USE

USE = ENTERTAINMENT:
PROVIDES A SOURCE OF RELAXATION
I ENJOY LISTENING TO THE RADIO FOR RELAXATION AND TO STAY INFORMED
LISTENING TO MUSIC IS GOOD ENTERTAINMENT
PERSONAL ENJOYMENT AND LISTENING PLEASURE
FM RECEPTION IS FAR SUPERIOR TO AM
I LISTEN TO BACKGROUND MUSIC WHEN DRIVING OR AROUND HOUSE
HAVING MUSIC IS IMPORTANT TO ME
AS I SUE THE RADIO ON THE TRACTOR FOR MANY HOURS EVERY DAY IN SUMMER
WEATHER AND DRIVING CONDITIONS ARE IMPORTANT WHEN TRYING TO DRIVE
DIFFICULT TO FIND PROGRAMMING WITHOUT VIOLENCE, EXPLICIT SEX,

GOOD MUSIC AND PROGRAMMING IS UPLIFTING TO THE SPIRIT
PROVIDES ENTERTAINMENT WHEN TV NOT AVAILABLE
LISTEN TO RADIO FOR MUSIC ENTERTAINMENT
MUSIC & STORIES PROVIDE WHOLESOME ENTERTAINMENT WHILE DOING CHORES
ENTERTAINMENT GENERALLY AND FOR RELAXATION
KEEP COMPANY WHILE
I LIKE MUSIC AND CANLISTEN WHILE DOING OTHER THINGS
MUSIC RELAXES AND COMFORTS THE SOUL

USE = EDUCATION FOR CHILDREN:
LOCAL NATIONAL AND INTERNATIONAL CURRENT AFFAIRS
WE TAPE BROADCASTS FOR SCHOOLS
FEEL EDUCATION CAN ALSO BE ENTERTAINING AND IS MOST IMPORTANT

USE = EDUCATION FOR ADULTS:
LOCAL NATIONAL AND INTERNATIONAL CURRENT AFFAIRS
TO KEEP UP WITH CURRENT LOCAL, CANADIAN & INTERNATIONAL EVENTS
TO BROADEN MY HORIZONS, BRING THE OUTSIDE WORLD TO ME, UP TO DATE

USE = INFORMATION:
THE NEWS IS THE MOST IMPORTANT TO ME
TO KEEP INFORMED ON LOCAL, REGIONAL AND NATIONAL EVENTS
I LIKE TO KEEP INFORMED OF WHAT IS HAPPENING LOCALLY
KEEP UP TO DATE WITH CURRENT EVENTS AND LOCAL NEWS
TO GET THE NEWS, FOLLOW IT CLOSELY
NEWS AVAILABLE ANYTIME AND IN VEHICLES
IT IS IMPORTANT TO KEEP INFORMED
NO MAJOR NEWSPAPER AVAILABLE CURRENTLY
REQUIRE WEATHER REPORT FOR DRIVING, NEWS TO STAY INFORMED HOURLY
TO BE KNOWLEDGEABLE
MY MOST USED MEDIA FOR DAILY NEWS IS RADIO
LOCAL WEATHER AND NEWS
TO BE INFORMED REGARDING WORLD EVENTS
MUST KEEP INFORMED ABOUT LOCAL & WORLD EVENTS ALSO WEATHER AND ROADS
STAY UP TO DATE
UP TO THE MINUTE NEWS, WEATHER, SPORTS, REPORTS AS WELL AS LOCAL HAPPE
KEEP INFORMED
KEEP UP TO DATE
WANT TO KNOW WHAT IS HAPPENING LOCALLY
LOCAL NATIONAL AND INTERNATIONAL CURRENT AFFAIRS
MOST UP TO DATE
LIKE TO BE INFORMED
SUNDAY MORNING BROADCAST, CBC NEWS VERY COMPREHENSIVE AND EXCELENT
I AM INTERESTED IN LOCAL NEWS
SELF-EXPLANATORY
FOR WEATHER REPORTS
NEED FOR INFORMATION
TO HEAR THE CURRENT NEWS, BE ADVISED OF MEETING DATES, ETC.
NEWS IS BROADCASTED REGULARLY AND MORE FREQUENTLY ON RADIO THAN TV
LOCAL NEWS TODAY, NOT NEXT WEEK
FOR EMERGENCIES, RATIFICATION, PROPER OPINIONS (FARMER)
SELF EXPLANATORY - INFORMATION IS NEWS
LOCAL NEWS ARE IMPORTANT
IMPORTANT TO KNOW WHAT IS GOING ON IN THE WORLD,WHAT THE WEATHER IS,
TO KEEP INFORMED
LOCAL NEWS AND WORLD NEWS
NEWS KEEPING UP TO DATE ON WORLD EVENTS, BUSINESS, NEWS, ETC.
GET ALL NEWS, SPORTS AND WEATHER
NEWS AVAILABLE USUALLY EVERY 1/2 HOUR WHICH IT IS NOT ON T.V.
FOR MY HOCKEY POOL INFORMATION

4-3b. FIRST MOST IMPORTANT RADIO USE (con't)

ALL OUR LOCAL NEWS IS ON RADIO CBC YELLOWKNIFE, CBC NATIONAL IS GOOD
CONVENIENT NEWS TIME SLOTS
FOR WEATHER & OTHER REPORTS, GRAIN PRICES
NEWS & INFORMATION
NEWS, WEATHER, SPECIAL EVENTS
MOST IMMEDIATE SOURCE OF LOCAL NEWS
GET THE NEWS OF WEATHER, ROAD CONDITIONS, WHAT HAPPENS, DISASTER INFO.
CBC NEWS PROGRAM VERY IMPORTANT IN CONSIDERATION OF POOR QUALITY
NEWS EVERY HOUR, KEEP IN TOUCH WITH CURRENT EVENT
PROVIDE ACCESS TO THE "OUTSIDE WORLD" AND THE REGION AT HOME
RADIO IS ONLY SOURCE OF IMMEDIATE INFORMATION

USE = KEEP ME COMPANY:
I ENJOY LISTENING TO THE RADIO FOR RELAXATION AND TO STAY INFORMED
FOR HOSPITAL PATIENT ENTERTAINMENT THEY CANNOT ALL WATCH T.V.
WHEN DRIVING IN CAR

USE = HANDICAPPED:

USE = DO NOT LISTEN TO RADIO:

USE = OTHER:

4-3c. SECOND MOST IMPORTANT USE

USE = ENTERTAINMENT:
WILE TRAVELLING, USE RADIO FOR ENTERETAINMENT
I LIKE GOOD MUSIC
MUSIC FM CBC HAS EXCELLENT INTERVIEWS & TALK SHOWS
TRAVELS A LOT
LITTLE OTHER ENTERTAINMENT AVAILABLE
ENJOY MUSIC
ENJOY CLASSICAL MUSIC, CBC FM AND CBC RADIO DRAMA, SCIENCE & OTHERS
DO NOT USE RADIO (RESIDENCE) FOR ENTERTAINMENT, BUT IN CAR WHEN TRAVEL
IN NORTHERN ALBERTA ENTERTAINMENT IS IMPORTANT
I DO A LOT OF DRIVING - NEED MUSIC
KIDS LIKE MUSIC
ENTERTAINMENT
ENTERTAINMENT ONLY
MUSIC
TV IS NOT ALWAYS EXCITING
CHILDREN LISTEN TO CHEHD AND HEAR ALL HITS, WE LIKE CKUA, CBC FM
SELF-EXPLANATORY
NEED FOR RELAZATION
TO ENJOY MUSIC
ENJOY LISTENING TO MUSIC
GREAT TO LISTEN TO KEEP YOU GOING
MY WIFE LIKES TO HEAR MUSIC WHEN DOING HOUSEHOLD CHORES
I LOVE TO LISTEN TO MUSIC
ENJOY MUSIC & LISTENTING TO RADIO WHILE WORKING, RELAXING, ETC.
ESPECIALLY USEFUL WHEN DRIVING
BACKGROUND MUSIC IS NICE WHEN READING, WORKING, ETC.
TO RELIEVE STRESS
I LIKE MUSIC
RELAXING TO RADIO MUSIC - STRESS TREATMENT
MUSIC & LIGHT ENTERTAINMENT ARE NICE IN THE BACKGROUND
MUSIC AND STORIES ARE CULTURALLY ENRICHING AND PROVIDE RELAXATION

USE = EDUCATION FOR CHILDREN:
RADIO ENCOURAGES THE IMAGINATION, NECESSARY FOR CHILDREN,

USE = EDUCATION FOR ADULTS:
ENJOY LISTENING TO GOOD MUSIC AND CANNOT AFFORT TO PURCHASE RECORDS
IMPORTANT TO KNOW WHAT IS GOING ON IN THE WORLD
TO BE BETTER INFORMED
I TRY TO LISTEN TO LOCAL NEWS & WEATHER
CBC OFFERS SOME TREMENDOUS PROGRAMS
I CAN USE IT AND OTHERS CAN TOO
CAN DIAL IN TO INTERESTING PROGRAMS AT ALMOST ANY TIME
TO KEEP ME THINKING AND PROVIDE INFORMATION ON TOPICS I DON'T KNOW

USE = INFORMATION:
UPDATES & QUICK INFORMATION ON CURRENT EVENTS
IT IS IMPORTANT TO KNOW WHAT IS GOING ON
INFORMATION ON CURRENT EVENTS AND SPORTS NEWS
TO KEEP IN TOUCH WITH CURRENT NEWS
NEWS IS NEWS, IT DOESN'T HAVE TO SOUND LIKE MUSIC
TO KEEP ABREAST OF WHAT'S HAPPENING
TO LISTEN WHILE TRAVELLING IN CAR & PICK UP SPORTS NOT TELEVISED
TO SEE WHAT IS HAPPENING WITH NEWS & SPORTS AND WEATHER
NEWS IS MORE OFTEN AVAILABLE ON RADIO THAN ON TV
KEEP INFORMED OF CURRENT EVENTS
KEEPING AREAST OF NEWS AND OTHER PERTINENT INFO HELPS YOU UNDERSTAND
NO OTHER WAY OF RECEIVING NEWS
LISTEN TO RADIO FOR NEWS
TO KEEP ABREAST OF CURRENT AFFAIRS LOCALLY AND IN THE WORLD
KEEP UP TO DATE ON UNUSUAL EVENTS OR HAPPENINGS
ENJOY GOOD MUSIC - FM
BEING INFORMED OF INTERNATIONAL & LOCAL NEWS ACTIVITIES, EVENTS, ETC.

USE = KEEP ME COMPANY:
SAME AS ABOVE
TO KEEP ME COMPANY
TV IS MOSTLY USED FOR ENTERTAINMENT, RADIO USED WHEN TV RECEPTION BAD
SELF EXPLANATORY

USE = HANDICAPPED:

USE = DO NOT LISTEN TO RADIO:

USE = OTHER:

4-4a. $100 RADIO SERVICE IMPROVEMENT ALLOCATION

ALLOCATION	TOTAL	PERCENT
EDUCATIONAL PRGM	485.00	8.01
LOCAL COMMUNITY	805.00	13.30
# of AM CHANNELS	765.00	12.64
# of FM CHANNELS	2985.00	49.33
COST - REC.EQUIP.	670.00	11.07
QUALITY/RANGE	0.00	0.00
PRGM-MOTHER TONGUE	340.00	5.61

THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT ($) : 20

4-4b. LARGEST IMPROVEMENT

WANT QUALITY FM COMTEMPORARY MUSIC STATION
PUT A RADIO STATION IN THE HIGH PRAIRIE AREA
NOT SURE
ADD STATIONS
BETTER RANGE AND DISTANCE FOR BROADCASTING BY RADIO STATIONS
LOCAL COMMUNITY PROGRAMMING WOULD BE BENIFICIAL FOR ADVERTISING LOCALY
ALL HAVE BEEN RATED EQUAL IN IMPORTANCE
ECONOMIC IMPORVEMENT & WANT ST PUAL STATIONS TO COME IN
OUR OWN COMMUNITY RADIO STATION
GET IT
RECEPTION IS A PROBLEM WITH STATIONS LIKE CFRN, BETTER RECEPTION EQUIP
SET UP LTD PROGRAMMING FROM HIGH PRAIRIE/GROUARD EVENING & SUNDAYS
WOULD LIKE TO BE ABLE TO LISTEN TO EDMONTON STATIONS
GAVE EQUAL SHARE, SEE PREVIOUS COMMENTS
EDUCATION IS VITAL AND SHOULD BE PROVIDED THROUGH WHATEVER IS AVAILABL
SELDON LISTEN TO RADIO, ONLY FOR LIMITED USE INDICATED ABOVE, ADEQUATE
FM ALTERNATIVE TO HOT ROCK MUSIC STATION OTHER THAN ACCESS & CBC
MORE FM STATIONS OR REBROADCASTING FACILITIES
INSTALL A GOOD FM MUSIC STATION
STABILIZE THE QUALITY OF RECEPTION
FM NOT AVAILABLE IN THIS AREA
QUALITY AND RANGE = MANY OF THE EDMONTON STATIONS CUT OUT IN EVENINGS
ONLY 2 ENGLISH FM STATIONS, 1 FRENCH STATION
INSTALL REPEATER STATIONS OR TRANSMIT BY CABLE
MORE LOCAL NEWS COULD BE INCLUDED
NOT FAMILIAR WITH THE ELECTRONIC OPERATION
FM SHOULD BE AVAILABLE
IMPROVE RANGE OF EDMONTON STATIONS FOR AM & FM
COULD POSSIBLY RECEIVE PEACE RIVER CONTINUALLY WITH MORE NORTH NEWS
FM REBROADCAST TOWER
FM ROCK STATION
INCREASE THE NUMBER OF FM CHANNELS
HAVE RADIO STATIONS SEND STRONGER SIGNALS
N/A
I AM NOT TECHNICAL
STRENGTHEN SIGNALS OF STATIONS IN EDMONTON AREA FOR THE NORTH
INCREASE THE AVAILABILITY
PROVIDE MORE CHANNELS
PROVIDE MORE SELECTION AND BETTER QUALITY
YOU CANNOT RECEIVE THE GOOD STATIONS
BRING IN ADDITIONAL RADIO SIGNALS
AT THE PRESENT THERE ARE NO PROGERAMS IN CREE FOR OUR AREA
BETTER RECEPTION - ELIMINATE INTERFERENCE
W. J. PAGE MORE POWERFUL TRANSMITTER
INCREASE POWER AND COVERAGE AREA ALONG HWY TO EDMONTON

4-4b. LARGEST IMPROVEMENT (con't)

FM VARIETY IS POOR
ONE CREE PROGRAM COMING OVER ONCE IN A WHILE TO BRING CURRENT NEWS
CANNOT GET THE "ACCESS" CHANNEL
IMPORTANT EVENTS IN OUR COMMUNITY BUT NEVER AIRED ON T.V.
MAKE FM STATIONS AVAILABLE, RECEPTION IS GENERALLY BETTER
TO GIVE A FM RADIO SERVICE
WOULD ENJOY BEING ABLE TO RECEIVE FM RADIO, NOW ONLY AVAIL. VIA CABLE
STRONGER SIGNAL NEEDED (CBC-FM)
DO NOT RECEIVE ANY FM STATIONS AT PRESENT TIME
IMPROVE NUMBER OF CHANNELS (FM) AVAILABLE BY IMPROVED RECEPTION RANGE
SET UP A SIMPLE STUDIO IN TOWN TO USE CBC TRANSMITTER FOR 1-2 HRS./DAY
INSTALLATION & BROADCASTING OF FM
MORE POWER TO LARGE CENTRE STATIONS OR ON TRANSRECEIVER EQUIPMENT
MORE EDUCATIONAL PROGRAMS
MORE VARIETY
NO LOCAL STATION
UPGRADE WATTAGE
WOULD BE NICE TO HAVE LOCAL PROGRAMMING EG. WEATHER & NEWS
MORE VARIETY, LESS ADVERTISING AND DRIVEL
FM SERVICE HERE IS LTD. TO 1 STEREO FM, 1 FM MONO, WANT MORE STATIONS
IF THERE IS A BUSINESS OPPORTUNITY AN FM STATIONS SHOULD BE PRODUCED
RANGE OF LOCAL RADIO PROGRAMMING IN WESTLOCK TO KEEP CURRENT ON NEWS
MORE SMALL POWER BROADCAST STATIONS, MORE LINKAGES WITH EDUCATION SERV
SET UP FM RELAY STATION IN AREA
LOCAL RADIO STATOINS SHOULD BE ABLE TO THEIR TOTAL "TRADING AREA"

4-4c. SECOND LARGEST IMPROVEMENT

IN EVENING AIR WAVES ARE FLOODED WITH STATIONS, FILTER SOME OF THEM OU
NOT SURE
ADD ONE OR LIVE STATIONS FROM QUEBEC
NONWE
A WIDER VARIETY OF STATIONS WOULD BE NICE
WORK WITH LAC LA BICHE SATELLITE TV TO BRING FM CHANNELS IN
BOOST FREQUENCY SO AS TO GET RADIO WAVES IN OUR AREA
OUR OWN COMMUITY RADIO STATION
WOULD LIKE TO BE ABLE TO TUNE INTO FORT MCMURRAY
DEVELOPMENT OF LOCAL TV/RADIO ARTS SKILLS TO PROVIDE LOCAL PROGRAMMING
BOOST CBC FM AND EDUCATION FM STEREO STATIONS
GAVE EQUAL SHARE, SEE PREVIOUS COMMENTS
RE-BROADCAST STATIONS FOR FM
IMPROVE RECEPTION
RELAY STATIONS FOR ACCESS
PROVIDE ACCESS TO FM STATIONS OTHER THAN CBC
IMPROVEMENT REQUIRED IN EDMONTON STATIONS CJCA, CFRN, CHQT SO AVAILABL
REBROADCAST OF SOME EDMONTON STATIONS
ONE AM CHANNEL WOULD BE USEFUL
SAME AS ABOVE
N/A
INTRODUCE SOME PROGRAMMING IN UKRAINIAN AT THE LOCAL RADIO STATION
MAKE MORE CHANNELS AVAILABLE
N/A
BROADEN SELECTION OF CHOICE IS REQUESTED
SO YOU CAN RECEIVE THE GOOD STATIONS FROM CITY
LONGER RANGE FOR FM STATIONS
EDUCATIONAL PRESCHOOL PROGRAMS WOULD BE BENIFICAL
RANGE IS POOR ESPECIALLY IN REMOTER AREAS OF I.D. 23
DIVERT TO OTHER PROGRAM CONTENT AND DIVERSIFY YOUR LISTENING AREA
HAVE A RADIO STATION IN WHITECOURT
RECEIVE CBC & CJYR OFF AIR NOW, WOULD PREFER WIDER CHOICE
WITH SOME AM WE ARE ON THE FRINGE AREA & IMPROVED SIGNAL IS REQUIRED
FM RADIO SIGNAL WITH THE CABLE TV SIGNAL, ENCOURAGE NATIVE BROADCASTER
MORE VARIETY OF AM CHANNELS REQUIRED
BE ABLE TO GET DISTANT STATIONS
N/A
NO FM STATION
IMPROVE RADIO SERVICE, LTD. ACCESS TO FM
GOOD RECEPTION FROM A LONG DISTANCE ALLOWS BETTER VARIETY, CLEAR RECEP
EDUCATIONAL
THE SHORT WAVE RECEPTON IS FREQUENTLY TERRIBLE
FOR FM RECEPTION EQUIPMENT SHOULD BE MORE ECONOMICAL
MORE PROGRAMMING WITH A LOCAL/REGIONAL FLAVOR, TAPES AVAILABLE
MORE FM STATION
NORTHERN RESIDENTS SHUOLD HAVE ACCESS TO THE SAME OPPORTUNITIES

4-5. MONTHLY RADIO IMPROVEMENT ALLOCATION

$0	=	46
$1-$5	=	28
$6-$10	=	9
$11-$20	=	2
$21-$35	=	0
$36+	=	0
Not Indicated	=	23

QUESTIONNAIRE ANALYSIS
SECTION FIVE - DISTANCE EDUCATION

5-1. HAVE YOU USED ANY DISTANCE EDUCATION SERVICES IN LAST 12 MONTHS?

YES =	18
NO =	83
Not Indicated =	7

5-2. DO YOU HAVE ANY IMPORTANT UNSATISFIED NEEDS re: DISTANCE EDUCATION?

YES =	33
NO =	52
Not Indicated =	23

SPECIFY THE TYPE OF SERVICE YOU HAVE IN MIND:
- ACCESS TO DATABASES AND ON LINE REFERENCE MATERIAL
- TIED IN THE PHONE LINES, ONE PARTY LINE FOR COMPUTERS
- NATIVE EDUCATION
- EDUCATIONAL PROGRAMS ON TV
- UNDERGRADUATE/GRADUATE LEVEL UNIVERSITY COURSES
- COURSES THROUGH ATHABASCA UNIVERSITY, FRENCH, ADMIN.
- ADVANCED UNIV. BUSINESS COURSE WITH TV LECTURE,PHONE INTERFA
- UNIV. COURSES: BUS. ADMIN., LANGUAGE INSTRUCTION FRENCH
- COMPUTER UTILIZATION (ACCOUNTING)
- INCORPORATE VIDEO WITH AUDIO - TELECONFERENCING
- LONG DISTANCE CHARGES FOR TELECONFERENCING COULD BE LESS
- MORE VARIED UNIVERSITY COURSES OFFERED THROUGH TELECONFERENC
- VOCATIONAL EDUCATION COURSES, SUPPLEMENT TO EDUCATIONAL PGM.
- HIGH SCHOOL PROGRAMS
- PHD PROGRAM
- I DONT THINK ENOUGH IS AVAILABLE FOR EVERYONE'S INTERESTS
- SCHOOL PROGRAMMING, ADULT PROGRAM, BOTH CREDIT AND NONCREDIT
- COURSES WOULD BENEFIT RESIDENTS OF ISOLATED COMMUNITIES
- PERSONAL EDUCATION DEVELOPMENT COURSES I.E. UNIVERSITY
- SUPPLEMENT SCHOOL RESOURCES AND LEARNING OPPORTUNITIES
- A TUTOR AVAILABLE TO HELP STUDENTS TAKING CORRESPONDENCE
- INFORMATION OF COMMUNITY DEVELOPMENT, FEEDBACK ON PROGRAMS
- ADULT EDUCATIONAL MATERIAL, LANGUAGE, COMPUTER, CULTURE, ART
- ITV OR ACCESS SHOULD BE AVAILABLE IN THE HOME LIKE CBC & CTV
- LACK OF LOCAL COURSES, VIDEO ENHANCEMENTS, COMPUTER TELECONF
- TWO WAY AUDIO-VISUAL MEDIA, DIAL-A-SERVICE (SEE QUESTIONNAIR
- CONTINUING EDUCATION SERVICES
- LOCAL GOVERNMENT ADMIN CERTIFICATE, BUS. ADMIN. DEGREE
- A BIT OF EVERY SUBJECT
- ACCESS TO DATAPAC IN LOCAL FLAT RATE AREA
- MATERIAL SHOULD BE AVAIL. VIA VIDEO FOR NORTHERNERS
- TELECONFERENCE COSTS ARE HIGH, EDUCATIONAL COURSES BY VIDEO
- VIDEO CONFERENCING, LOWER AGT RATES, SEPARATE TRANSMISS.LINE

5-3. WHY YOU NEED THIS TYPE OF SERVICE

ACCESS TO EDUCATION SERVICES - LARGE CENTRES = 35
CONTINUING EDUCATION - KEEP SKILLS CURRENT = 26
EDUCATION - COMPETITIVENESS OF BUSINESS = 18

OTHER (please specify):
ATHABASCA UNIV. IS EXCELLENT
ENJOY IMPROVING MY MIND
HELP EXPAND CHILD'S EDUCATION & SCOPE
ACCESS SHOULD BE POSSIBLE FOR ALL UNIVER
SKILL DEVELOPMENT AND THEORY ACQUISITION
PROVIDE AVAILABILITY OF HIGHER EDUCATION
GIVE HELP TO COMMUNITY GROUPS AND INDIVI
ACCESS TO EDUCATION TO IMPROVE LIFE
FOR OWN SATISFACTION
FOR SELF IMPROVEMENT, KNOWLEDGE, HOBBIES
USEFUL IN UPGRADING & UNIVERSITY COURSES
LEARNING ENGLISH AS A SECOND LANGUAGE

5-4. COURSES FOR WHICH TUITION WAS CHARGED

YES = 21
NO = 22
Not Indicated = 65

TYPE OF COURSE:
PH.D. PGM, U OF O, NEUROSCIENCE & EDUC.
IF TELECONFERENCING AVAIL I MIGHT HAVE
CORRESPONDENCE
MANAGEMENT, BUILDING INSPECTION
GRADUATE LEVEL UNIVERSITY COURSES
MUNICIPAL GOVT, INTRO TO UNIV OF CALGARY
ACCOUNTING
LOCAL GOV'T ADMIN, U OF A EXTENSION
SOCIOLOGY 287 THROUGH ATHABASCA UNIVERSI
TELECONF. THROUGH ALBERTA HOSPITAL ASSOC
COUNSELLING
ATHABASCA UNIVERSITY COURSES
RESPONDED TO AN ORGANIZATION BASIS
DALE CARNEGIE COURSE
PROFESSIONAL DEVELOPMENT COURSES
LOCAL GOV'T ADMIN. CERT., COMPUTER PGM.
COMPUTER COURSES
WELDING
NORWEGIAN LANGUAGE COURSE
CHEMISTRY 10, SOCIAL 10, ENGLISH 13
ACADEMNIC UPGRADING, UNIV., PARAPROFESS.
UNIV. LEVEL, GRADUATE & POST-GRADUATE

APPENDIX B

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APPENDIX C

BIBLIOGRAPHY

APPENDIX C. BIBLIOGRAPHY

Aboriginal Radio and Television Society, "Broadcast Strategy For Northern Alberta"

Aboriginal Radio and Television Society, "Electronic Media Programming For Aboriginal People In Northern Alberta", December 1984

ACCESS Network, News Releases Re: Satellite Services, 1985

Alberta Advanced Education, "RITE ON II, A plan To Extend The use of the RITE Network For Educational Teleconferencing Purposes to the AVC's and CVC's In Alberta", 1985/86

Alberta Education, "LASERDISC Information Package", June 1985

Alberta Government Telephones, General Tariff and Basic Services Publications, August 1985

de Camprieu R. and Bourgeois J.C. "Demand For Rural Communication Services In Canada - A Literature Review", January 1979

Demand Research Consultants Incorporated prepared for Department of Communications, "Analysis of the Residential Demand For Improved CB/Mobile Radio Services In Rural Canada", March 1982

Department of Communications, Government of Canada, "Sampling Frames For The Rural Residential & Business Demand Surveys", May 1981

Department of Communications, Governnment of Canada, "Study of the Demand for Communication Services in Rural Canada - Residential Survey", 1981

McPhail T.L. and Hamilton S., "Communication in the 80's", The University of Calgary, 1985

McPhail T.L. and McPhail B.M., "Telecom 2000 - Canada'a Telecommunications Future", University of Calgary, 1985

Northern Alberta Development Council, "Economic Development Opportunities In Northern Alberta", 1985

Northern Alberta Development Council "Northern Development: Goals for Programs"

Northern Alberta Development Council, "Trends In Northern Alberta, A Statistical Overview 1971 - 1979", 1981

State Of Alaska, Department of Administration "Annual Report on Teleconferencing To Governor Bill Sheffield", May 1985

State of Alaska, Department of Administration "History and Current Management of State-Provided Television Service"

State of Alaska, Department of Administration "Inventory Of Communications Facilities Serving Alaska Communities", 1986

State of Alaska, Department of Administration "Telecommunications In Alaska", January 1986

State of Alaska, Department of Administration "Television Delivery in Rural Canada", September 1984

State of Alaska, Department of Administration "Telecommunications Fifth Annual Report" 1985

Westsat Communications "Satellite Channel Chart", November - December 1985

WORKING PAPERS

INSTRUCTIONS FOR COMPLETING QUESTIONNAIRE

We have sent this questionnaire to you because of your position as a spokesperson for a particular group. When questions refer to a home or "residence" please respond in terms of your own home experience. But for broader questions please try to reflect the interests of the group or community you represent.

Most of the questions are quite straight forward but a couple require more involved responses. The method to be used in answering these questions is demonstrated in the sample below. Remember, THESE ARE SAMPLES ONLY.

Sample Questions and Answers

1-3a. What telecommunications services require improvement? Please read the list of services provided below and provide responses in two areas. First, indicate with a (✓) which of the services you feel must be improved in your area (you can select any number of the services). Second, indicate the order in which those services should be improved, by circling a "1" for FIRST, a "2" for SECOND, and so on:

(✓) MOBILE TELEPHONE SERVICES	1 2 (3) 4 5 6
( ) TELEPHONE SERVICES	1 2 3 4 5 6
( ) TELEVISION SERVICES	1 2 3 4 5 6
(✓) RADIO BROADCASTING SERVICES	(1) 2 3 4 5 6
( ) DISTANCE EDUCATION SERVICES	1 2 3 4 5 6
(✓) TELEX	1 (2) 3 4 5 6
( ) NO IMPROVEMENT NEEDED IN ANY OF THESE SERVICES	

1-3b. For the service that you indicated should be improved first (circled "1"), please indicate HOW it should be improved.

IMPROVE THE QUALITY OF FM RECEPTION. RIGHT NOW I CAN ONLY GET IT CLEAR IN A CHILE

1-3c. For the service that you indicated should be improved second (circled "2"), please indicate HOW it should be improved.

THERE IS NO TELEX SERVICE AVAILABLE IN MY COMMUNITY

QUESTIONNAIRE

REVIEW OF TELECOMMUNICATION NEEDS IN NORTHERN ALBERTA

SECTION ONE - GENERAL

1-1. Please indicate the language that is most often spoken in your residence among the occupants of that residence. (The language specified here will be referred to as your "MOTHER TONGUE" later in this questionnaire.) Language Spoken in residence is:.....

1-2. Please indicate with a (✓), which of the following services are available in your community.

MOBILE TELEPHONE SERVICES	( )available	( ) don't know
TELEPHONE SERVICES	( )available	( ) don't know
TELEVISION (no charge)	( )available	( ) don't know
CABLE TELEVISION	( )available	( ) don't know
PAY TV	( )available	( ) don't know
RADIO BROADCASTING SERVICES	( )available	( ) don't know
DISTANCE EDUCATION SERVICES	( )available	( ) don't know
TELEX	( )available	( ) don't know

*** NOTE: DISTANCE EDUCATION HERE REFERS TO THE PROVISION OF EDUCATION SERVICES WHERE SOME PORTION OF THE INSTRUCTION IS PROVIDED BY WAY OF RADIO, TELEPHONE OR TELEVISION. ***

1-3a. What telecommunications services require improvement? Please read the list of services provided below and provide responses in two areas. First, indicate with a (✓) which of the services you feel must be improved in your area (you can select any number of the services). Second, indicate the order in which those services should be improved, by circling a "1" for FIRST, a "2" for SECOND, and so on:

( ) MOBILE TELEPHONE SERVICES	1 2 3 4 5 6
( ) TELEPHONE SERVICES	1 2 3 4 5 6
( ) TELEVISION SERVICES	1 2 3 4 5 6
( ) RADIO BROADCASTING SERVICES	1 2 3 4 5 6
( ) DISTANCE EDUCATION SERVICES	1 2 3 4 5 6
( ) TELEX	1 2 3 4 5 6
( ) NO IMPROVEMENT NEEDED IN ANY OF THESE SERVICES	

1-3b. For the service that you indicated should be improved first (circled "1"), please indicate HOW it should be improved.

.....

.....

.....

1-3c. For the service that you indicated should be improved second (circled "2"), please indicate HOW it should be improved.

.....

.....

.....

SECTION TWO - TELEPHONE

2-1. Do you have access to a telephone:

a) at home ( )yes ( )no
b) at work ( )yes ( )no

2-2. If there is no telephone in your home, please indicate why you do not have a residence phone:

( ) TOO EXPENSIVE
( ) TELEPHONE ON ORDER—WAITING FOR INSTALLATION
( ) CANNOT GET THE TYPE OF SERVICE I NEED
( ) CANNOT GET TELEPHONE SERVICE TO MY RESIDENCE
( ) NO NEED FOR A TELEPHONE
( ) OTHER (Please specify).....
.....

IF YOU DO NOT HAVE A TELEPHONE IN YOUR RESIDENCE PLEASE SKIP TO QUESTION 2-5.

2-3. What is your residential telephone mainly used for? Please read the list of uses for the telephone provided below and give responses to two questions. First, indicate with a (✓) those purposes for which your residence phone is most often used. (You can select any number of the uses). Second, indicate which of these are the most important uses, in the opinion of the members of your household, by circling a "1" for FIRST, a "2" for SECOND, and so on:

( ) COMPUTER COMMUNICATIONS	1 2 3 4 5 6 7 8
( ) CONVENIENCE,TIME SAVING (eg.appointments)	1 2 3 4 5 6 7 8
( ) ACCESS TO EMERGENCY SERVICES/HELP	1 2 3 4 5 6 7 8
( ) SOCIAL REASONS (eg. friends, relatives)	1 2 3 4 5 6 7 8
( ) CONTACT WITH BUSINESSES/SERVICES	1 2 3 4 5 6 7 8
( ) DISTANCE EDUCATION	1 2 3 4 5 6 7 8
( ) FAMILY REASONS	1 2 3 4 5 6 7 8
( ) OTHER (Specify).....	1 2 3 4 5 6 7 8

.....

2-3b. For the use that you indicated as most important (circled "1") please indicate WHY you consider it most important.

.....
.....

2-3c. For the use that you indicated second most important (circled "2") please indicate WHY you consider it second most important.

.....
.....

2-4. What type of residential telephone service do you pay for now? (Check One)

( ) Individual Line
( ) Four Party line
( ) More than four party line
( ) Do not know

2-5. Please look at the list of telephone services noted below. Assume for a moment that YOU had $100 to spend on either obtaining for the first time or reducing the cost to you, for each of the 7 services noted below. Now take that $100 and allocate it among the 7 services, giving the most to the service that you feel needs the most improvement and less to those services requiring less improvement. You may allocate the entire $100 to one service, or distribute it among any or all of the services, but the total of the amounts allocated must equal $100.

($) FEWER PARTIES ON THE LINE
($) LARGER AREA YOU CAN CALL WITHOUT LONG DISTANCE CHARGES
($) MONTHLY COST OF INDIVIDUAL LINE SERVICE
($) LOWER LONG DISTANCE CHARGES
($) ACCESS TO EMERGENCY SERVICES
($) ACCESS TO A LINE FOR COMPUTER COMMUNICATIONS
($) LOWER INSTALLATION COST FOR AN INDIVIDUAL LINE

($100) TOTAL

( ) CHECK HERE IF YOU BELIEVE THAT THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT

2-5b. For the service to which you allocated the largest share of the $100, please indicate specifically what improvements you would most like to see to that service.

.....
.....

2-5c. For the service to which you allocated the second largest share of the $100, please indicate specifically what improvements you would most like to see to that service.

.....
.....

2-6. How much are you prepared to pay monthly towards the improvement of telephone service in your area, over and above any amounts you now pay for telephone service?

( ) $0 ( ) $1-$5 ( ) $6-$10 ( ) $11-$20 ( ) $21-$35 ( ) $36+

2-7. Please tell HOW you believe the COST of providing telephone services to Northern Alberta could be REDUCED.

.....
.....
.....
.....

2-8. Is your community served by the Alberta Government "Regional Information Telephone Enquiries" (R.I.T.E.) number? ( )yes ( )no ( )don't know

SECTION THREE TELEVISION

3-1. Do you own a television set? ( )yes ( )no

3-2. If you do not own a television set, please indicate why not. (check as many as apply)

( ) DO NOT WATCH TV/NOT INTERESTED
( ) TOO EXPENSIVE TO BUY TV
( ) RECEPTION EQUIPMENT TOO EXPENSIVE
( ) POOR RECEPTION
( ) CHOICE OF STATIONS TOO LIMITED
( ) NO STATION IN OWN LANGUAGE
( ) CANNOT WATCH/HEAR (Blind, Deaf, etc.)

2-5. Please look at the list of telephone services noted below. Assume for a moment that YOU had $100 to spend on either obtaining for the first time or reducing the cost to you, for each of the 7 services noted below. Now take that $100 and allocate it among the 7 services, giving the most to the service that you feel needs the most improvement and less to those services requiring less improvement. You may allocate the entire $100 to one service, or distribute it among any or all of the services, but the total of the amounts allocated must equal $100.

($) FEWER PARTIES ON THE LINE
($ 20) LARGER AREA YOU CAN CALL WITHOUT LONG DISTANCE CHARGES
($) MONTHLY COST OF INDIVIDUAL LINE SERVICE
($) LOWER LONG DISTANCE CHARGES
($ 50) ACCESS TO EMERGENCY SERVICES
($ 30) ACCESS TO A LINE FOR COMPUTER COMMUNICATIONS
($) LOWER INSTALLATION COST FOR AN INDIVIDUAL LINE

($100) TOTAL

( ) CHECK HERE IF YOU BELIEVE THAT THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT

2-5b. For the service to which you allocated the largest share of the $100, please indicate specifically what improvements you would most like to see to that service.
WE SHOULD BE ABLE TO CALL ONE NUMBER FOR EMERGENCIES

2-5c. For the service to which you allocated the second largest share of the $100, please indicate specifically what improvements you would most like to see to that service.
I AM ON A PARTY WAVE SO I'M USING MY PERSONAL COMPUTER ON THAT WAVE AFFECTS MY NEIGHBORS

Definition of Telecommunications

For the purposes of this survey, TELECOMMUNICATIONS is defined as "any means of transferring information or images electronically". We have separated this broad category into six parts:

- Telephone
- Television
- Radio Broadcasting
- Telex
- Mobile Radio
- Distance Education

When you answer the questions please try to think of your needs in each of these six areas. Try to think of which needs are most important and how those needs might best be satisfied.

3-3a. If you answered YES to question 3-1 above, please read the list of uses for the TV provided below, and answer the two following questions. First, indicate with a (✓) those purposes for which your TV is most often used. Second, indicate which of these are the most important uses, in the opinion of the members of your household, by circling a "1" for FIRST, a "2" for SECOND, and so on:

( ) ENTERTAINMENT	1 2 3 4 5 6 7
( ) EDUCATION FOR CHILDREN	1 2 3 4 5 6 7
( ) EDUCATION FOR ADULTS	1 2 3 4 5 6 7
( ) INFORMATION (news, etc)	1 2 3 4 5 6 7
( ) TO KEEP ME COMPANY WHEN ALONE	1 2 3 4 5 6 7
( ) HANDICAPPED, CANNOT GET OUT	1 2 3 4 5 6 7
( ) DO NOT WATCH TV	1 2 3 4 5 6 7
( ) OTHER (Please specify).....	1 2 3 4 5 6 7

3-3b. For the use that you indicated was most important (circled "1") please indicate specifically what improvements you would most like to see in that area.

3-3c. For the service that you indicated was second most important (circled "2") please indicate what improvements you would most like to see in that area.

3-4a. Which of the following Canadian TV services are available in your community? (check as many as apply)

( ) None ( ) CBC ( ) ITV ( ) CTV ( ) ACCESS ( ) MUCH MUSIC ( ) First Choice/Superchannel
( ) TSN ( ) Others (Please name).....

3-4b. Which of the following U.S. TV services are now available in your community? (Check as many as apply)

( ) None ( ) ABC ( ) NBC ( ) CBS ( ) PBS ( )Others (Please specify)

3-4c. What ADDITIONAL TV stations or types of programming do you strongly feel should be available in your community? (Please specify).....

3-5a. Please look at the list of TV services noted below. Assume for a moment that you had $100 to spend on improving the TV service in your area (this could include anything from getting TV service in the first place to reducing the cost of the service). Now take that $100 and allocate it among the 8 services, with the same methods used in question 2-5.

($)	EDUCATIONAL PROGRAMMING (EG. ACCESS TV)
($)	LOCAL COMMUNITY PROGRAMMING
($)	NUMBER OF FRENCH CANADIAN CHANNELS
($)	NUMBER OF ENGLISH CANADIAN CHANNELS
($)	NUMBER OF AMERICAN CHANNELS
($)	COST OF RECEPTION EQUIPMENT
($)	COST OF CABLE SERVICE
($)	PROGRAMMING IN YOUR "MOTHER TONGUE"
($100)	TOTAL

( ) CHECK HERE IF YOU BELIEVE THAT THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT

3-5b. For the service to which you gave the largest share of the $100, please indicate WHY you allocated that amount to that service.....
.....
.....

3-5c. For the service to which you allocated the second largest share of the $100, please indicate WHY you allocated that amount to that service.....
.....
.....

3-6. How much are you prepared to pay monthly towards the improvement of television in your area, over and above any amounts you now pay for television service?

( ) $0 ( ) $1-$5 ( ) $6-$10 ( ) $11-$20 ( ) $21-$35 ( ) $36+

3-7. Please tell HOW you believe television services COSTS to Northern Alberta could be REDUCED.
.....
.....
.....
.....

SECTION FOUR RADIO

4-1a. Is there a working radio(s) in your residence? ( )yes ( )no

4-1b. Is it ( )AM ( ) FM ( ) Short Wave (check as many as apply)

4-2a. Which of the following radio services are now available in your community? (Check as many as apply)

( ) ACCESS Radio (CKUA) ( ) CBC-AM ( ) CBC-FM ( ) CKRA-FM ( ) CHED-AM ( ) Local Stations (Please name) .....( ) Others (Please name).....

4-2b. What ADDITIONAL radio services or types of programming do you strongly feel should be available in your community?.....
.....
.....

4-3a. If you answered YES to question 4-1 above, please read the list of uses for the RADIO provided below, and respond to the two following questions. First, indicate with a (✓) those purposes for which your RADIO is most often used. Second, indicate which of these are the most important uses, in the opinion of the members of your household, by circling a "1" for FIRST, a "2" for SECOND, and so on:

( ) ENTERTAINMENT(music, stories, etc)	1 2 3 4 5 6 7
( ) EDUCATION FOR CHILDREN	1 2 3 4 5 6 7
( ) EDUCATION FOR ADULTS	1 2 3 4 5 6 7
( ) INFORMATION (news, etc)	1 2 3 4 5 6 7
( ) TO KEEP ME COMPANY WHEN ALONE	1 2 3 4 5 6 7
( ) HANDICAPPED, CANNOT GET OUT	1 2 3 4 5 6 7
( ) DO NOT LISTEN TO RADIO	1 2 3 4 5 6 7
( ) OTHER (Please specify).....	1 2 3 4 5 6 7

.....

4-3b. For the use that you indicated as most important (circled "1") please indicate WHY you consider it most important.....
.....
.....

4-3c. For the use that you indicated second most important (circled "2") please indicate WHY you consider it second most important.....
.....
.....

4-4. Please look at the list of RADIO services noted below. Assume for a moment that you had $100 to spend on improving the RADIO service in your area (this could include anything from getting RADIO service in the first place to reducing the cost of the service). Now take that $100 and allocate it among the 7 services, with the same methods used in question 2-5.

($) EDUCATIONAL PROGRAMMING (EG. ACCESS RADIO)
($) LOCAL COMMUNITY PROGRAMMING
($) NUMBER OF AM CHANNELS
($) NUMBER OF FM CHANNELS
($) COST OF RECEPTION EQUIPMENT
($) QUALITY/RANGE OF RECEPTION
($) PROGRAMMING IN YOUR "MOTHER TONGUE"

($100) TOTAL

( ) CHECK HERE IF YOU BELIEVE THAT THE ABOVE SERVICES DO NOT REQUIRE IMPROVEMENT

4-4b. For the service to which you gave the largest share of the $100, please indicate specifically what you believe should be done to improve this service.....
.....
.....

4-4c. For the service to which you allocated the second largest share of the $100, please indicate specifically what you believe should be done to improve this service.....
.....
.....

4-5. On a monthly basis, how much are you prepared to pay towards the improvement of RADIO service in your area, over and above any amounts you NOW pay?

( ) $0 ( ) $1-$5 ( ) $6-$10 ( ) $11-$20 ( ) $21-$35 ( ) $36+

SECTION FIVE DISTANCE EDUCATION

5-1. Have you used any "DISTANCE EDUCATION" services within the last 12 months? ( )yes ( )no

*** NOTE: DISTANCE EDUCATION HERE REFERS TO THE PROVISION OF EDUCATION SERVICES WHERE SOME PORTION OF THE INSTRUCTION IS PROVIDED BY WAY OF RADIO, TELEPHONE OR TELEVISION. ***

5-2. Do you have any important unsatisfied needs that could be adequately served by some form of "DISTANCE EDUCATION" services. ( )yes ( )no

If you answered YES, can you please specify the type of service you have in mind?
.....
.....
.....

5-3. If you answered YES to question 5-2 above, please indicate why you need this type of service (check as many as apply)

( ) Want access to the same type of education services available in larger centres
( ) Require continuing education to keep my skills current
( ) Require education to help improve the competitiveness of my business
( ) Other (please specify).....
.....
.....

5-4. If you answered question 5-3 above, have you taken any courses for which tuition was charged during the last 12 months? ( )yes ( )no If yes, please specify the type of course.
.....
.....

THE END

Thank you for your attention and assistance.

Ian R. Brown
Survey Director

#1263 "ACCESS" TELEVISION COVERAGE (Feb 19, 1985)

Claude Boulanger, Joussard Area Development Association
Camille Goutier, President, Box 38, TOG 1JO

ISSUE: "Access" satellite network facilities be located in an area where the signal may be received and rebroadcasted to largest population possible.

Proposed location-public land top of mntn 7mi. S of Joussard (LSD16 32-72-13-5)(I.D.17)

BACKGROUND: are not in favour of promoting "Access" network through Pay TV (cable operation)

- "Access"-cable will not reach those who most need it: rural areas, disabled, handicapped, sick at home or hospital, single families w/o use of daycare, unemployed, deaf [closed captioned] = "under privileged".

- overcome poverty through educ. (bring people to "Access", not bring "acc." to people)

ECONOMICS: costs may be considerable & unlikely gov't will provide funding

OPTION(?): regional distribution system to transmit "ACCESS" (e.g. PAAR Industrial Electronic Ltd. , Calgary)

#1140 IMPROVED SIGNAL (VIDEO & AUDIO) TO BEAVERLODGE AND AREA (May 28, 1984)

R. G. Marshall, Mayor, Town of Beaverlodge, P.O. Box 30 TOH OCO

ISSUE: frustrated with lack of TV reception and want (1) CTV to strengthen signal, (2) continue to operate their satellite rebroadcast system.

BACKGROUND: Beaverlodge is service centre for approx. 20,000 people

- C.B.C. recently installed a relay transmitter
- in 1980 Town purchashed a TV dish and have two extra channels
- poor reception from CTV rebroadcast tower 40 mi. away

ECONOMICS: NADC "funds designated for rural remote communities receiving only one channel or no television service at all"

#1080 FUNDING FOR SEXSMITH LOCAL TV ASSOC TO MOVE TO UHF BAND (Feb. 9, 1984)

Len Imrie, Director, Sexsmith Local T.V. Association, Box 420, TOH 3CO

ISSUE: SLTVA needs funding to buy expensive equipment to use UHF band

BACKGROUND: similar to above

- currently get two stations (CBC,CTV)
- NADC program Term of Reference are not broad enough:

1. Society (Certificate of Incorporation)
2. Have a CRTC license
3. Maximum grant is $10,000.00
4. Remote and receiving one or less good stations

#1071 FEDERAL GOV'T PRESSURE ON CABLE TV CO'S TO ABANDON PROVINCIAL REGULATIONS (Nov. 28, 1983)

Gary Christopherson, Telecommunications Utilities Association of Alberta, Box 1990, Fairview, TOL 1LO

ISSUE: Federal dispute about Cablevision companies operating under PUB
(see photocopy)

#1043 VERBAL BRIEF - SATELLITE FEASABILITY - GIFT LAKE SETTLEMENT (Oct/83)

Melvin Anderson, Gift Lake Settlement Council, General Delivery, Gift Lake, T0G 1B0

ISSUE: Community wants to expand television service

BACKGROUND: only get one station, CBC

- 100 households, 500 people in the immediate hamlet
- see Brief #963

- Shaw Cable wants to provide cable (likely only one station); rates may not be low enough for some citizens - want reasonable alternatives

- ("improved television services to northern communities has been a priority of the NADC for some time.")

- issue resolved Jan/85: been cabled, has CTV booster, operates own dish

#1127 VIDEO COMMUNICATION ISSUES IN NORTHERN ALBERTA (Apr.17, 1984)

Gary Christopherson, Glomma Cablevision Ltd., Fairview, Box 1990

See brief and article (photocopied)

#1097 TELEVISION SERVICE IN SMALL COMMUNITIES (Feb.21, 1984)

Len Imrie, Town of Sexsmith, Box 420, TOH 3CO, Sexsmith Local TV Association

ISSUE: CRTC cablevision licences to provide Cancom package of TV programming threatens the Town's purchase (investment) in their receiving and broadcasting equipment.

BACKGROUND: Cancom provides little choice and no improvement in station variety

- Cancom is relatively expensive ($20/mo)

- CRTC will only license applicants who willl provide Cancom

- (NADC supports small communities who have their own systems in place)

- CRTC licensing a competitor is seen as counter-productive to providing good service

- (NADC is unable to provide financial assistance to upgrade Sexsmith's system)

- want assistance to help research feasibility and cost of establishing a satellite TV.
  * NO RESPONSE NOTED

#1025 JANVIER INDIAN RESERVE - TV SATELLITE

Chief Archie Janvier, Community and Band, Janvier (I.R.#194)

ISSUE: Expand satellite service to include 2 Canadian channels

BACKGROUND: They have a small satellite which receives 2 American stations

- Require $36,237.86 to replace dish with newer and bigger satellite

- want Canadian & educational programming
  * NO RESPONSE FILED

#973 TV SATELLITE - HIGH LEVEL (Apr/83)

Irwin Packham, Deputy Chairman, New Town of High Level, Box 485, High Level, T0H 1Z0

ISSUE: Want financial assistance for TV society

BACKGROUND: The town board supports BREAS, the Bushy River Entertainment Alternatives Society

- BREAS is a non-profit society to establish a TV satellite receiving dish for the area

- BREAS has applied for a license

- Town granting BREAS land and insurance

STEPS: NADC grant approved - assistance provided

- one time grant for financial package

#963 SATELLITE TV - GIFT LAKE

ISSUE: want to provide television variety and need financial assistance

BACKGROUND: receive only one channel

- satellite service costs are too high per capita for the small community
  * NO RESPONSE FILED

#861 IMPROVED CABLE SERVICE (Sept. 1982)

Margaret Cote, citizens for Better Cablevision, P.O. Box 1439, Grande Cache, T0E 0Y0

ISSUE: Northern Cablevision Ltd. not providing adequate service to Grande Cache

BACKGROUND: 676 signatures were received on petition to Northern Cablevision to improve their service for which citizens have been paying

- Complaints: poor reception, poor method of payment, unburied cable, no emergency phone number.
- Receive four channels ($11.50/month)
- Expect to receive additional channels (compared to other remote areas)(CRTC Decision 82-674(812685600)
- power and cable are out numerous times during the year
- poor weather and geography
- other towns which Northern cablevision serves are generally dissatisfied as well

STEPS: NADC given inadequate lead time to formally support Citizen's Group in the time frame requested

- NADC does generally support quality TV in remote Northern communities

#860 GIFT LAKE - ASSISTANCE FOR MORE TV CHANNELS (Sept. 1982)
Mr. Charles L'Hirondelle, Chairman, Gift Lake Metis Settlement Association, General Delivery, Gift Lake, T0G 1B0

ISSUE: want to receive TV signal from Grouard

BACKGROUND: Channel 13 from Grouard was intended to be received in Gift Lake but it is not

- CRTC does not support QCTV's cost effective methods to distribute more good Canadian programming (Decision 82-406)

OPTIONS: Funds from Metis Development Branch

- Expenditures from own settlement trust fund

- Establish priorities by your own Council (re: Metis Dev. Br. & Trust fund)

#832 TV RECEPTION - CONKLIN & CHARD (Aug/82)

Andrew Quintal, Conklin Citizens Assoc., Elmer McDonald, Chard Citizens Assoc., Fort McMurray Advisory Council (I.D. No.18 (N))

ISSUE: Conklin receives NO TV, Chard receives one TV channel

BACKGROUND: Janvier reserve has satellite dish but neither place can receive it

- A local Oil company has a dish for its labour force, but neither place can receive

STEP: Can TV reception be accomplished through the Provincial Government
* No response filed

#778 VERBAL PRESENTATION - REVOKE NORTHERN CABLEVISION LICENSE (May, 1982)

Bernie Hornby, Deputy Chairman, New Town of Fox Creek, Box 149, Fox Creek, T0H 1P0

ISSUE: Revoke Northern Telecommunication Licence

BACKGROUND: Northern cablevision has double billed/ doublecharged

- CRTC is seen as not working hard & has done nothing to assist Town

- still only have two channels

- first complaint was 18 months ago and have seen no action

STEPS: survey other NernCvn subscripers in other towns

- NernCvn has added Cancom

#697 Hawk Hills (Division # 6) ONLY HAS ONE TV CHANNEL (Nov. 1981)

T.R. Sonntag, Hawk Hills Agricultural Society & I.D. 22, Hotchkiss, T0H 2B0

ISSUE: want another two channels

ECONOMICS: Providing three more TV signals would cost $100,000

#638 VERBAL BRIEF - FORT VERMILION - SATELLITE TV

Bob Gainer, Fort Vermilion Board of Trade, Fort Vermilion, T0H 1N0

ISSUE: ONLY HAS CBC TV & RADIO

BACKGROUND: Wives are sick of Hockey night in Canada

- No Recreation centre
- Closest movie theatre is High Level
- Interested in a movie channel and ITV

OPTIONS: CANCOM (when operative)

#525 TELEVISION IN CONKLIN (Oct/80)
Mrs. Edith Campbell, Conklin, T0A 0W0

ISSUE: There is no TV in Conklin, No mention of TV in response - other non-telecom issues were discussed

BRIEF 1026 FROM R.B.WELSH PRINCIPAL, NELSON HEIGHTS SCHOOL, BOX 520, 2035-5TH AVE., COLD LAKE, ALBERTA T0A 0V0 NOVEMBER 19, 1985
ADDITIONAL CONTACTS:
-MR. G. KIERNAN, SUPERINTENDANT, LAKELAND SCHOOL DISTRICT
-CHARLES R. SHOBE, DIRECTOR OF EDUCATIONAL SERVICES, ADULT EDUCATION, ACCESS NETWORK, 16930-114 AVE. EDMONTON, T5M 3S2
-NORTHERN CABLEVISION LTD.

ISSUE: ASSISTANCE WITH THE COST OF INSTALLING SATELLITE RECEIVING EQUIPMENT FOR EDUCATIONAL PROGRAMS

BACKGROUND:
-Nelson heights school wants to be a leader in the use of satellite broadcast educational programs
-principal wrote to MLA who contacted NADC
-Access responded to NADC saying that $1000. was avaiable for individual agencies to assist with purchase of receiving equipment IF LOCAL CALBLE COMPANIES DID NOT CARRY THE EDUCATIONAL PROGRAMMING

EXTENT OF USE: not clear

SPECIAL FEATURES:may require investigation of financial/legal implications of using educational broadcasts originating outside Alberta

KEY ECONOMICS: Major cost is in the purchase of receiving equipment

OPPORTUNITIES/OPTIONS:
-cable is available in the area
-Access, Knowledge Network and PBS are now on cable

CONSTRAINTS/PROBLEMS:
-Northern Cablevision does not carry the "6-pack" of the Learning Channel, C-span etc.

MEDIUM: Satellite broadcast of educational programs (distance education)

EDUCATION ISSUES CENTRE AROUND WHAT COURSES ARE OFFERED WHERE BUT DO NOT MENTION TELECOMMUNICATIONS. BRIEFS 821 AND 521 DEAL WITH AVC'S (GROUARD AND LAC LA BICHE RESPECTIVELY) BUT THEY TALK ONLY OF THE TYPE OF COURSES AND RELATED ISSUES.

IT MAY BE THAT WE SHOULD BE TAKING A PRO-ACTIVE LOOK AT THE ROLE OF TELECOMMUNICATIONS IN THESE SITUATIONS AS PART OF OUR 'FUTURES'SECTION.

-brief #373 deals with the location of Athabasca University in Athebasca, Alberta

NEED TO CONTACT CBC TO GET A MAP OF THEIR CURENT COVERAGE IN NORTHERN ALBERTA TODAY. THE OLDER BRIEFS HAVE CONCERNS WITH COVERAGE BUT MUCH OF THIS MAY HAVE BEEN RESOLVED BY NOW.

#1262 METIS SETLEMENT OFFICE TELEPHONE SERVICE (March, 1985)

Don McKeen, Metis Development Branch, Municipal Affairs, Harry Supernault, Metis Settlement, East Prairie Settlement, Box 1289, High Prairie, TOG 1EO

ISSUE: Metis Settlement office want private telephone service

- Residents currently have party lines

BACKGROUND: Residents pay same rental rate as those who have private phone lines

- no privacy, many interruptions

- can't use computer on party phone line

- can't try teleconferencing courses on party line

- private line nearby for AGT payphone

OPTIONS: PLEA (Party Line Emergency Access) device primarily designed for computer use of party lines with reasonable monthly charge

TINA (Tele-Information Network of Alberta) access databases from home but do need PLEA first for Party lines

ECONOMICS: High cost of private lines $500 million for whole province

#1236 E. F. R. C. AREA HYTHE TO GRANDE PRAIRIE (January 22, 1985)

Steve Dragon, Hythe Chamber of Commerce, Box 212, TOH 2CO

ISSUE: Requests provisions be made for EFRC to include Hythe and Grande Prairie exchanges

BACKGROUND: Supported by Hythe residents, County of Grande Prairie, are petition by Grande Prairie and Hythe Chamber of Commerce

- Original request was made in 9/80 but were turned down because were not community with more urgent needs

- Since then (4 yrs) economy has deteriorated, high farm costs and low net returns make family farms less viable, difficult for small businesses to be competitive and stay alive, village and town populations could dwindle

- Only community in County without service (e.g. Beaverlodge)

OPTION: Optional calling plan

ECONOMIC: under review by AGT, monthly rate could go up more than they want to pay

#1116 DATAPAC SERVICE FOR FAIRVIEW AND DISTRICT (April 17, 1984)

Neil Rennenberg and H. Alec Simpson, Box 189, Fairview, TOH 1LO

ISSUE: Access to data services in Canada and the world thereby no longer isolated.

BACKGROUND: Benefits not restricted to those who can afford the service

- Access to U of A's MIS (data library plus Social Science & Political Science)

- Have to pay long distance to Grande Prairie to access closest DATAPAC Users: Existing- Fairview College, Potential - Fairview School Division and Hospital, Alberta Agriculture, Local Governments (Town, MD, Hines, Dr., Business, Continuing Education Council, Individuals

- Supported by North Peace Adult Education Consortium (Harold Wynne, Director)

ECONOMICS: Dependent on traffic volume (not enough from Fairview)

- Non-trivial costs

OPTION: WATS (Wide Area Telephone Service) toll free access to DATAPAC

- Information Exchange Service in Alberta only, competitive rate re: DATAPAC, access MIS, viable at lower traffic volumes

- TINA (see above)

#890 911 EMERGENCY CALL SYSTEM - NORTHERN ALBERTA (December 22, 1982)

Bob Simpson, Secretary, North Peace Fire Chiefs Association, Box 17, Donnelly, TOH 1GO, Mrs. Rosemary Beggs, Smoky River Regional Economic Development Board

ISSUE: Upgrade the present system for communicating emergency situations in Northern areas with a 911 Emergency Call System.

BACKGROUND: Region is from Slave Lake to Spirit River on to High Level

- Great difficulty in coordinating and implementing emergency calls

- current system is barely adequate at best

#890 NORTH PEACE EMERGENCY CALL SYSTEM (APR/83)
SEE PHOTOCOPY

#859 VALHALLA CENTRE/HYTHE EXCHANGE - GRANDE PRAIRIE (SEP/82)
SEE PHOTOCOPY

#851 HYTHE-GRANDE PRAIRIE TOLL-FREE CALLING (SEP/82)
SEE PHOTOCOPY

#764 BEAR CANYON/WORSLEY TELEPHONE EXCHANGE (AUG/82)
SEE PHOTOCOPY

#545 MCLENNAN - EXTENDED AREA SERVICE (JAN/81)
SEE PHOTOCOPY

#534 PREVENTIVE SOCIAL SERVICES - RITE LINES ACCESS
SEE PHOTOCOPY

#533 PRIVATE PHONE INSTALLATION - SANDY LAKE (OCT/80)

Joyce Cerny, President, Pelican Mountain Association, Sandy Lake, Desmarais, T0G 0T0

ISSUE: lack of privacy on party line

BACKGROUND: Need for private phone lines for the following: Community Office, Community Nurse, General American Oil Co., Northland School, Community Store, Taron Enterprises.

- Privacy needed because eg. Nurse-Client interface, busy phone lines for business (incoming/outgoing), problems with emergency access

CONSTRAINT: In 1980, there was not enough business to require service; costly to install

STEPS: Business has been expanding

- Businesses have been contacted by AGT

BRIEF #859

Richard Harpe
Box 137
Valhalla Centre. TOH 3MO

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(1) Hythe Exchange - re toll-free calling.

Farmers in the area are in the same boat as Hythe citizens - should not have to pay for toll charges to Grande Prairie.

(2) Highway 59 - (Sexsmith to Valhalla Highway #2)- request for paving.

Oiled 10 years ago. Every year falls apart due to heavy truck traffic. Highways maintenance crew renewed patches, and spiked patches. Shoulders are unsafe - the road is unsafe.

Request road be rebuilt and paved.

In the winter of 1980-81 in one spot there were 8 accidents.

Elmer answered by saying Highway 59 is being surveyed this year.

Communications System

The Communications System consists of a 6/4 GHz Transponder Subsystem, a 14/12 GHz Transponder Subsystem, an Antenna Subsystem and a Power and Telemetry Conditioner.

6/4 GHz Transponder Subsystem

The 6/4 GHz Transponder System has 12 RF channels with channel centre frequency spacing of 40 MHz and useable bandwidth of 36 MHz. The frequency and polarization assignments are shown in Figure 2.6.

The received 6 GHz band signal is amplified by the selected redundant receiver and downconverted to the 4 GHz band. It is further amplified by transistor amplifiers before being separated into twelve, 40 MHz wide, channels by the input multiplexers. Each channel is amplified by its own TWTA and the outputs are combined into two groups of six channels in the output multiplexers for input to the 6/4 GHz antenna. A block diagram of the 6/4 GHz transponder is shown in Figure 2.7.

14/12 GHz Transponder Subsystem

The 14/12 GHz Transponder Subsystem has six RF channels with channel centre frequency spacing of 80 MHz and useable bandwidth of 72 MHz. The frequency and polarization plans are shown in Figure 2.8.

The received 14 GHz band signal is amplified by the selected redundant receiver, translated to the 12 GHz band and further amplified by selectable, redundant, GaAs FET amplifiers. The input multiplexers separate the wideband signal into six 80 MHz wide channels. Based on its frequency, and ground commanded switching, each signal is routed via ground commanded gain control units to one of four TWTAs, for further amplification. Normally up to four channels (ie. two TWTAs) may be used at

Figure 2.6 Anik A/Anik B 6/4 GHz Frequency and Polarization Plan

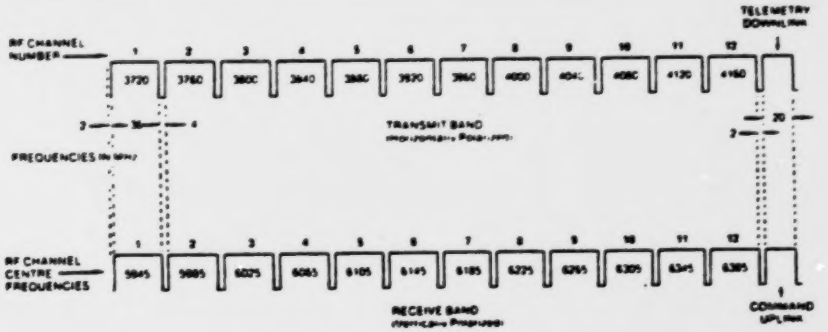
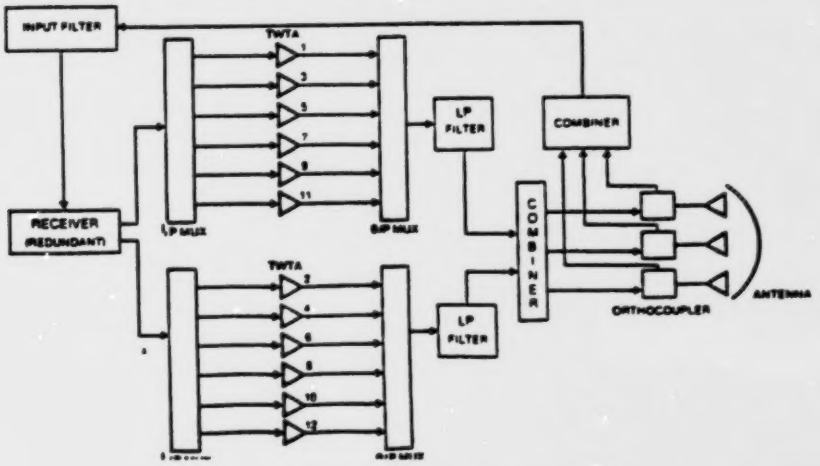


Figure 2.7 Anik B 6/4 GHz Communications Subsystem



one time. Further switching, at the output of the TWTAs, routes signals for combining in the output multiplexers prior to transmission via one of the four down link antenna beams. A block diagram of the 14/12 GHz transponder is shown in Figure 2.9.

The Antenna Subsystem

The Communications Antenna Subsystem is on the satellite earth-facing panel. It consists of two separate assemblies, one for each of the 6/4 GHz and 14/12 GHz transponders. Both receive signals which are vertically polarized and transmit signals which are horizontally polarized. On this panel are also the launch omni and orbit omni antennas.

The 6/4 GHz antenna provides full Canada coverage on up and downlinks. Figure 2.10 shows the basic antenna receive and transmit patterns at 6 and 4 GHz.

The 14/12 GHz antenna provides full Canada coverage on the uplink and has four slightly elliptical spot beams on the downlink (West, West Central, East Central and East). Figure 2.11 shows the basic receive and transmit patterns at 14 and 12 GHz.

To allow for satellite operation from any of the possible orbit locations, an East/West offset can be commanded.

Power and Telemetry Conditioner

This unit processes the transponder related commands for applying power and setting transponder configuration. It also conditions transponder telemetry signals for transmission via the redundant telemetry module and beacon transmitter.

Figure 2.8 Anik B 14/12 GHz Frequency and Polarization Plan

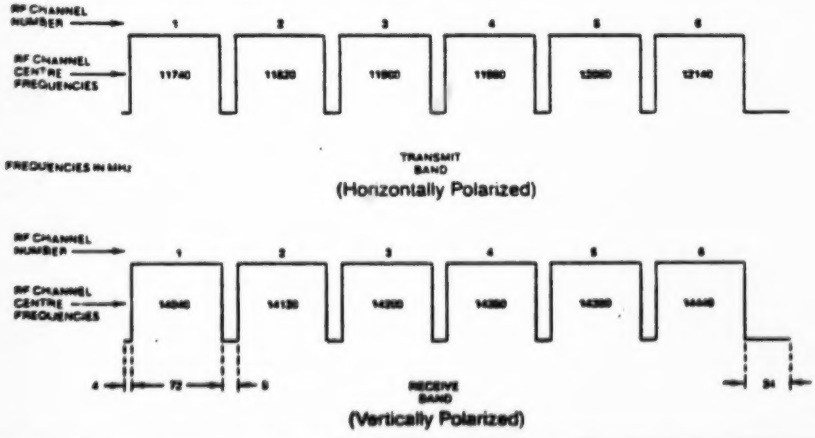


Figure 2.9 Anik B 14/12 GHz Communications Subsystem

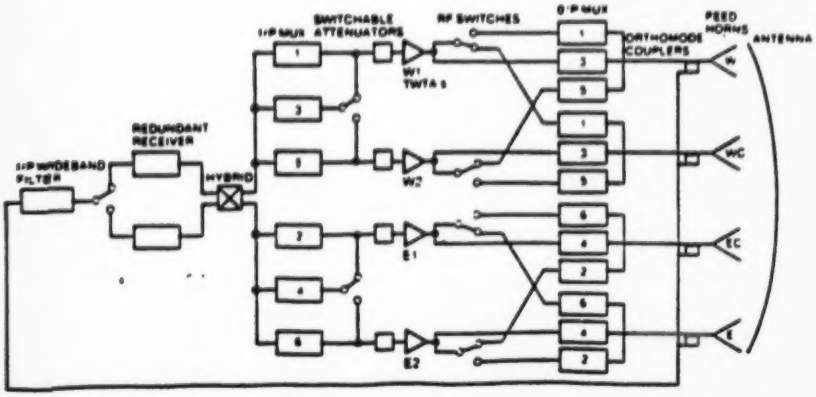


Figure 2.10 Anik B Antenna Patterns 6/4 GHz

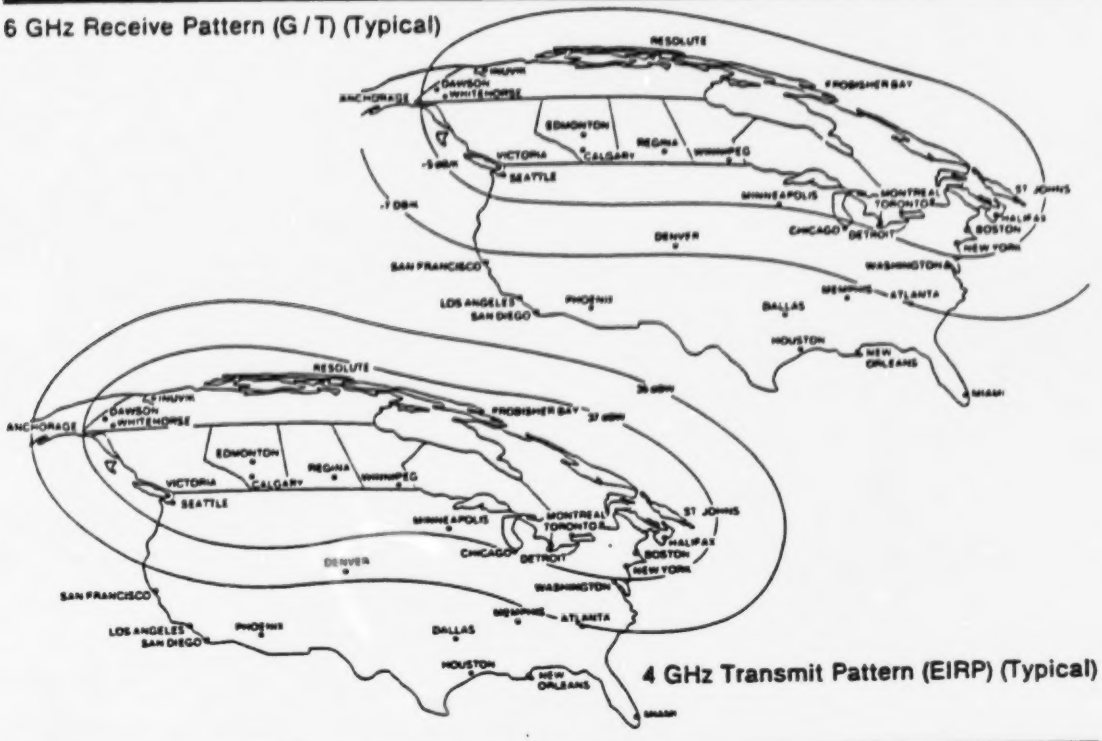
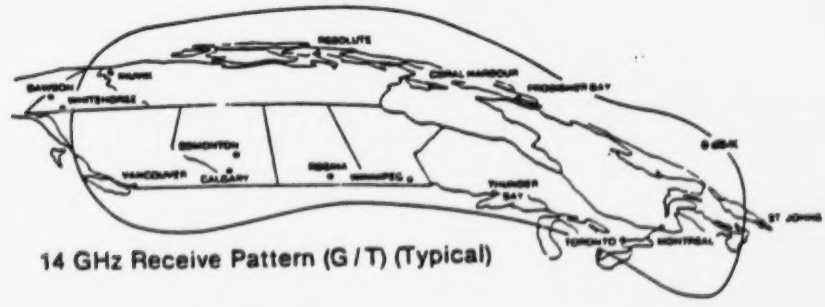
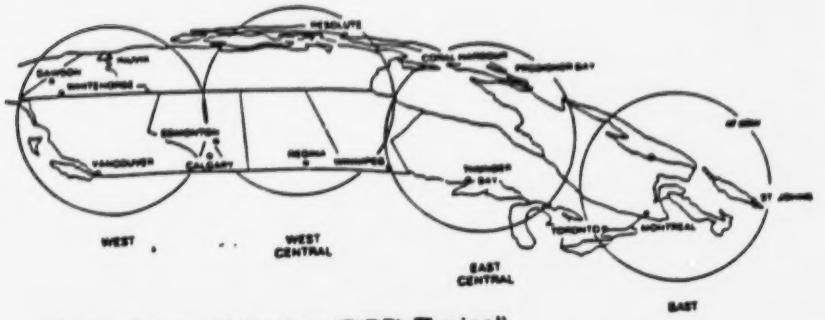


Figure 2.11 Anik B Antenna Patterns 14/12 GHz





Electrical Power Subsystem

Power to operate the satellite is derived from solar cells mounted on panels on the exterior of the spinning structure. These panels supply power at 30 V steady state bus voltage for satellite operation and battery charging during sunlight operation. During earth eclipse of the sun, two batteries assume the full load with no decrease in channel capacity or performance. Additional solar strings are used for battery charging, and are controlled by ground command.

The solar array is sized to sustain all sixteen channels at end of life. The batteries are also sized to support this full load during eclipse seasons at a 50% depth of discharge at beginning of life.

Thermal Control Subsystem

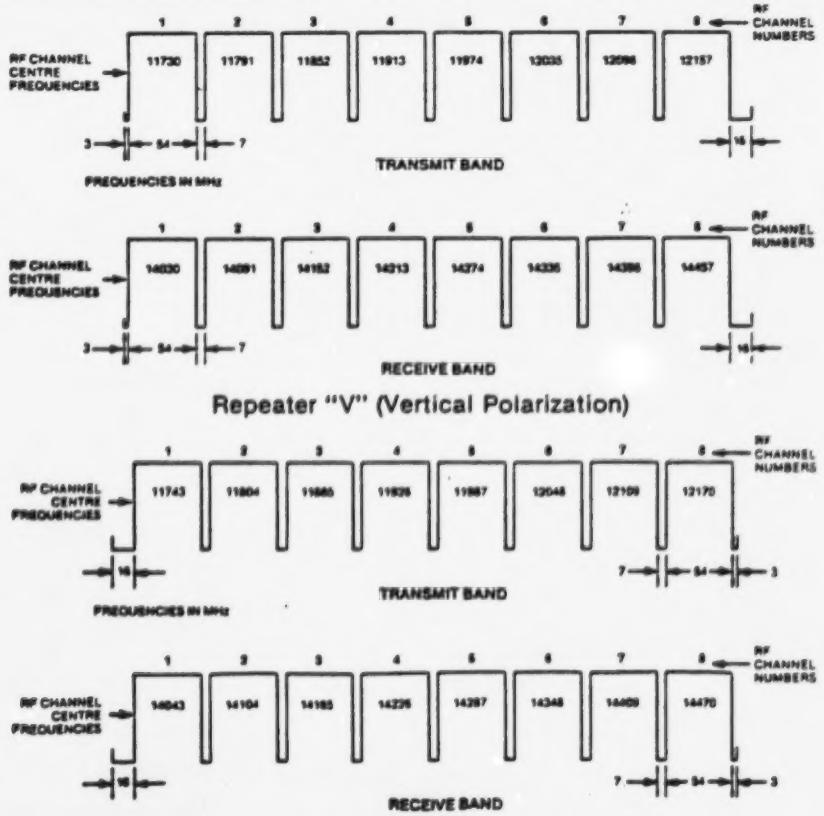
The Thermal Control System uses passive and active elements. Insulating blankets reduce heat loss from the ends of the spacecraft and a sun shield protects the antenna. A thermal radiator, between the forward and aft solar drums, removes heat from the communications shelf. Thermostatic heaters, with command override, are provided for temperature sensitive units such as the TWTAs, batteries and the antenna beacon tracking filter.

Communications System

Transponder Subsystem

The Anik C communications system uses the concept of frequency reuse (two repeaters, Vertical and Horizontal Polarization). This gives a capacity of sixteen RF channels, each with a nominal useable bandwidth of 54 MHz, within a bandwidth of 500 MHz (Figure 2.14). The frequency plan provides an offset of 13 MHz between the centre frequencies of corresponding Horizontal and Vertical RF channels, in the two repeaters, to minimize interference between them.

Figure 2.14 Anik C 14/12 GHz Frequency and Polarization Plan



Two single conversion receivers are multiplexed into sixteen RF channels, eight channels for each polarization (Figure 2.15). Each channel has its own Travelling Wave Tube Amplifier (TWTA).

Redundancy features which have been incorporated are:

i) Three spare communications receivers available to replace the main receivers, by ground command, in the event of malfunction.

ii) A redundancy switching network connecting the sixteen RF channels to twenty TWTAs, with a minimum number of switches, thus allowing up to four TWTA failures without loss of an RF channel.

Antenna Subsystem

The uplink antenna coverage (Figure 2.16) for both polarizations uses single shaped antenna beams. Linear orthogonal polarization, using a shared reflector aperture, provides the necessary isolation between the two uplink beams.

Figure 2.15 Anik C 14/12 GHz Communications Subsystem

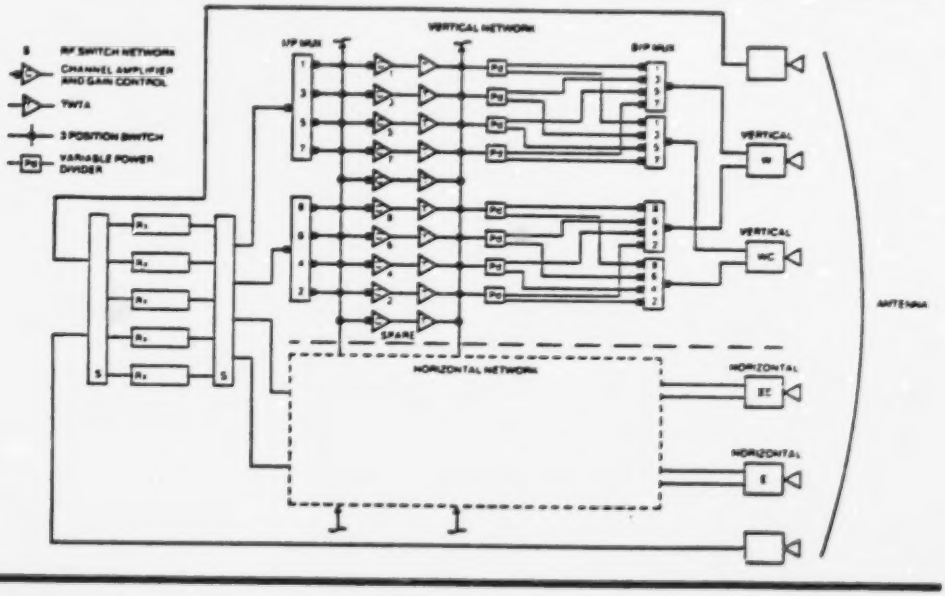
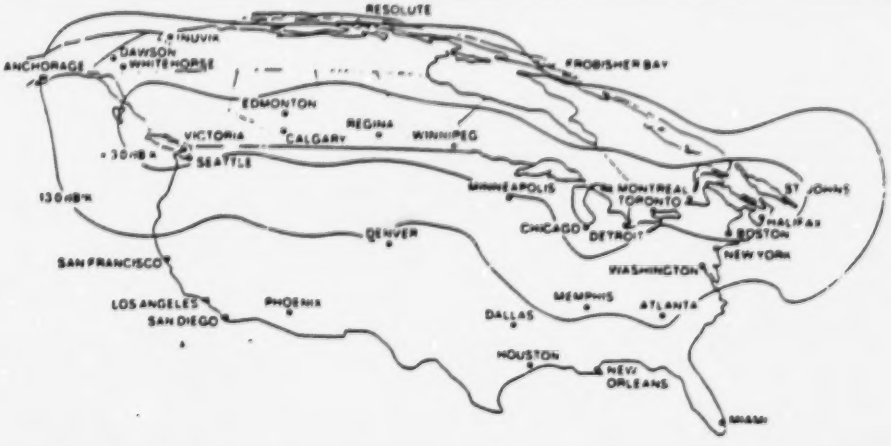


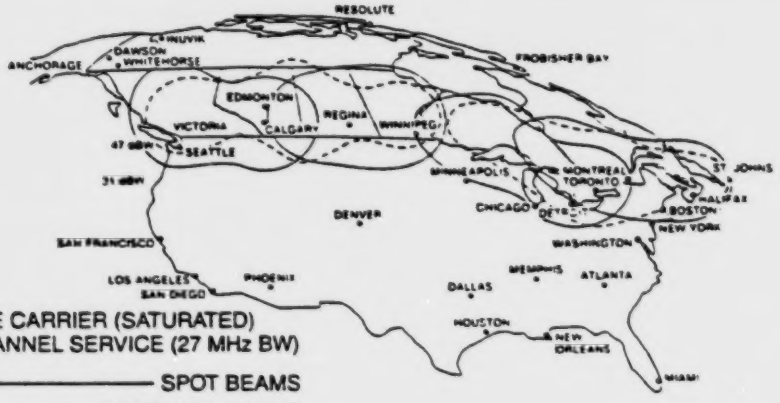
Figure 2.16 Anik C 14 GHz Receive Pattern (G/T) (Typical)



The downlink antenna coverage area is divided into four regions across southern Canada. Each region is approximately 2° East-West by 1° North-South as viewed from synchronous orbit. The contours in Figure 2-17 show the typical EIRP. One repeater serves the western two regions while the other repeater serves the eastern two regions. Within each repeater, each RF channel has output switching to permit service to either of its coverage regions individually or both simultaneously. Hence, the downlink coverage requirements for each RF channnel can be optimized for the type of traffic and service to be provided. Typically the broader area coverage is more appropriate for TV distribution while the narrower coverage is preferred for heavy route message service.

The antenna reflector may be tilted South to give better coverage of the continental USA, or North to improve coverage of Northern Canada. This may require relocation of the pilot control station to a suitable position relative to the footprint, since Anik C spacecraft have active North/South antenna pointing control.

Figure 2.17 Anik C 12 GHz Transmit Pattern (EIRP) (Typical)



47dBW SINGLE CARRIER (SATURATED)
42dBW RF CHANNEL SERVICE (27 MHz BW)

———— SPOT BEAMS

- - - - - - COMBINED BEAMS

Anik D Spacecraft

The Anik D1 spacecraft was launched in August 1982 by an augmented Thor Delta launch vehicle. The Anik D spacecraft is based upon the Anik C design for the bus subsystem but carries a 6/4 GHz communications payload. The spacecraft are designed to be compatible with both the Shuttle and Delta launch systems.

Structure and Bus System

The Anik D structure and bus systems are essentially identical to those of Anik C. The exception is the command receive and telemetry portion, which will operate in the 6/4 GHz frequency bands instead of the 14/12 GHz bands.

Communications System

The Anik D communications system uses the technique of frequency reuse and orthogonal polarization to achieve a capacity of twenty four channels. Each channel has a nominal useable bandwidth of 36 MHz, within a bandwidth of 500 MHz. The frequency plan is shown in Figure 2.18. There will be adequate power for at least 20 channels at end of life.

Transponder Subsystem

The transponder incorporates standby receivers connected in a four-for-two redundancy scheme, the operating receivers being controlled by ground command. The twenty four TWTAs are connected such that they are switchable in a four-for-two redundancy scheme with respect to a prime channel as illustrated in Figure 2.19. For operational use, twelve channels can be designated as primary, the remainder being allocated to pre-emptible traffic or acting as backup. The block diagram of the communication subsystem (Figure 2.20) illustrates the redundant features.

Figure 2.18 Anik D 6/4 GHz Frequency and Polarization Plan

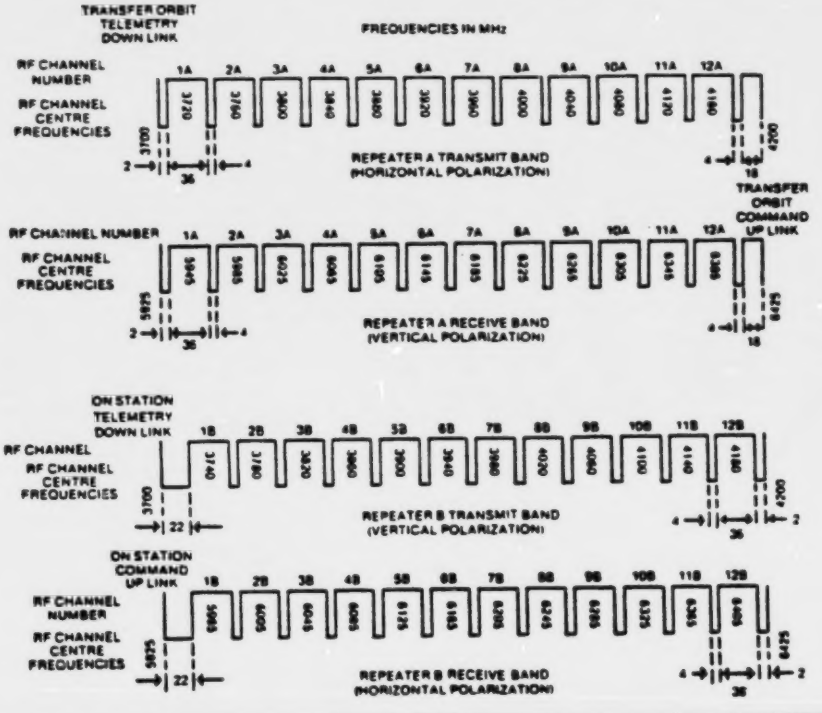
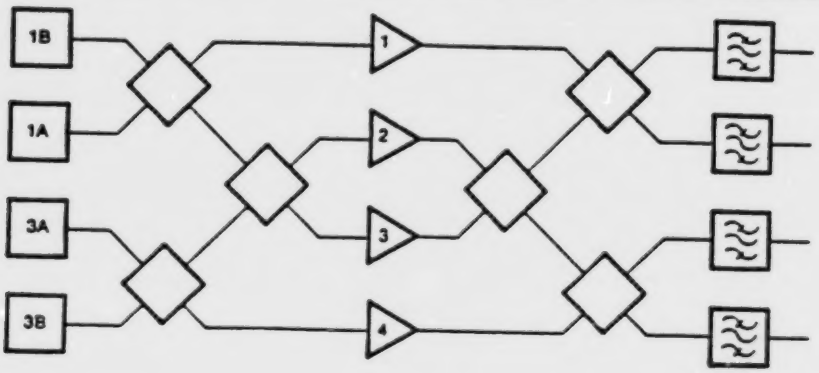
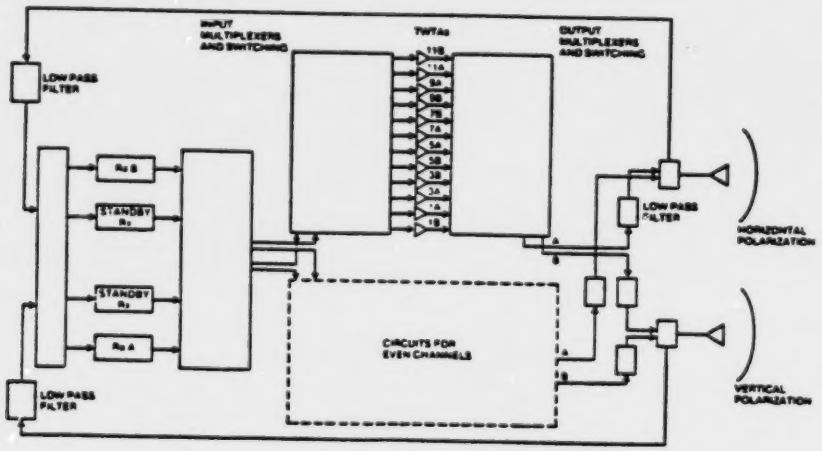


Figure 2.19 Anik D TWTA 4-for-2 Redundancy Switching Arrangement



CHANNEL	1A	3A	1B	3B
TWTA				
PRIMARY	2	3	1	4
BACKUP	1 or 3	2 or 4	2 or 3	2 or 3

Figure 2.20 Anik D 6/4 GHz Communications Subsystem



Antenna Subsystem

The antenna subsystem is similar to that of the Anik C spacecraft, except that full Canadian coverage is provided on both polarizations. Linear, orthogonal, polarization provides the necessary isolation between the two downlink beams. The transmit and receive patterns are shown in Figures 2.21 and 2.22. Anik D satellite reflectors may be tilted south to give better coverage of the continental USA. Note that Anik D has no active North/South antenna pointing control.

Figure 2.21 Anik D 4 GHz Transmit Patterns (EIRP) (Typical)

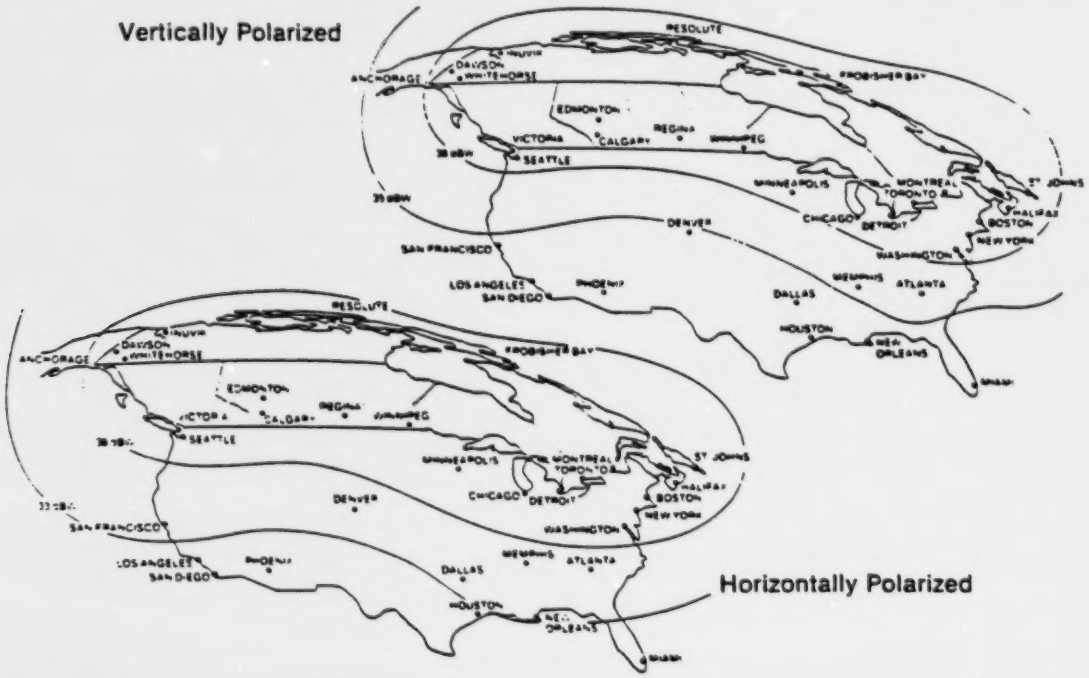
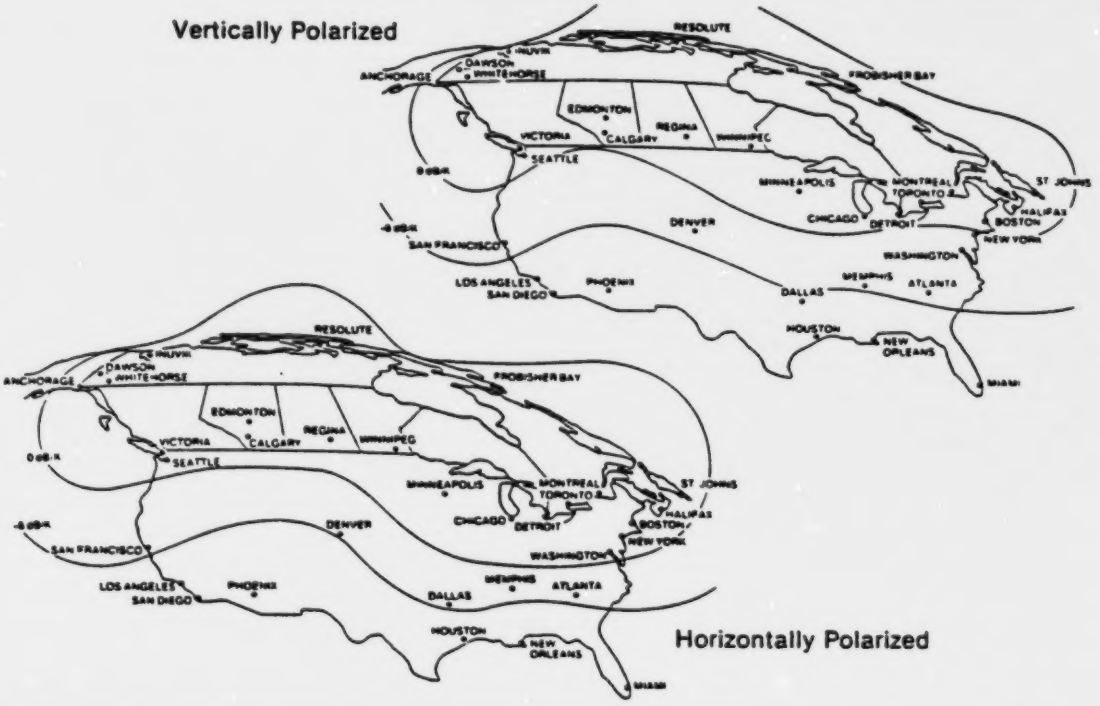


Figure 2.22 Anik D 6 GHz Receive Pattern (G/T) (Typical)



Future Satellites

Telesat is presently initiating preliminary studies for replacement spacecraft for the Anik C and Anik D satellites. Future satellite systems will undoubtedly use new technologies to improve the overall system cost effectiveness. Recent technological advances, which will be considered, include solid state output amplifiers in place of TWTAs, unified propulsion systems (combined AKM and RCS), on-board computers for advanced attitude control and autonomous operation, and nickel/hydrogen batteries. Message, video and teleconference, transborder traffic requirements are expected to grow rapidly in the next decade. The spacecraft antenna may therefore be designed to permit coverage of both Canada and the USA, possibly on a switchable basis.

Increased payload capacity of launch vehicles make larger dual band satellites a possibility that must be considered. However, other considerations, such as orbit frequency coordination, accuracy of forecasting requirements, and replenishment strategies will also have to be included in selecting the spacecraft's configuration.

On-board satellite signal processing, including satellite switched TDMA, will be considered, although at this time it appears unlikely that this will find application in replacement spacecraft for Anik C or Anik D, but rather for future 20/30 GHz systems. In any case more flexibility will be included in feeding channels to different antenna beams.

TECHNOLOGY REVIEW

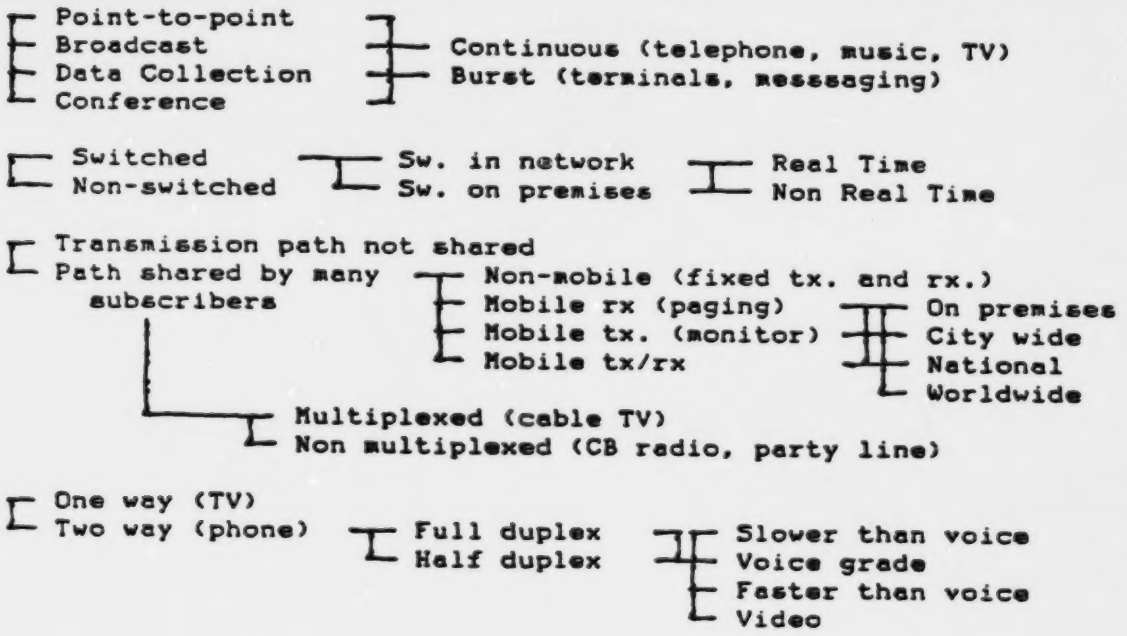
I. BACKGROUND

Many of the innovative technical approaches to Telecommunications are not available in Canada. The regulatory atmosphere in Canada does not promote the competitive environment that prevails in the United States and that results there, in a plethora of equipment and services. It is important therefore when discussing technology to analyze those facilities and services that are either available now or stand a good chance of being approved by the regulators for use in Canada.

II. GLOSSARY AND DEFINITIONS

A. Communications Terminology

The following diagram illustrates the categories of communications links[1] that will provide a framework for discussion:



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[1] Future Developments in Telecommunications, James Martin, Prentice Hall, Inc.

B. Definitions

ACSD - Amplitude compandored single sideband modulation techniques for radiotelephone transmitters and receivers. Technical acceptance and certification criteria are contained in Telecommunications Circular 72 (TRC 72).

RSP 114 - Department of Communications Radio Standard Procedure 114, Issue 3 governing licensing of satellite uplinks and microwave. Issued April, 1985.

MSAT - Mobile Satellite. Telesat filed a business proposal for a mobile satellite service in Februery, 1985. Funding was deferred.

CANCOM - Canadian Satellite Communications (Cancom) Inc., Toronto. A supplier of TV broedcast services using satellite. Cancom's primary responsibility is to serve remote and underserved communities.

Municipal Re-Transmit - A Federal Order in Council (June, 1985) allows municipalities to add Television re-transmit operations to their services and raise the necessary capital through taxation. The initiative originated in Saskatchewan

Extended Area Service - A flat rate calling service over an extended area. On Aug. 7, 1985 the CRTC ruled that Bell Canada need not implement EAS beyond rail and road links in Northern Ontario, Quebec and the Northwest Territories.

FAX - Facsimile. Transmission of documents using data communications, normally over landlines, but a recent announcement has succesfully used mobile radio from a remote location to the telephone network.

MATV/SMATV - Master antenna and satellite master antenna systems. Usually installed in multi-unit buildings.

Anikom 100 - A service provided by Telesat (July, 1985) that provides one-way, point to multipoint data communications. A similar service is available off the Westar satellite through Telesat and Equatorial Communications of California.

Anikom 200 - A two way data service that will be offered in late 1986.

CRSN - The Canadian Radio Satellite Network. A service provided by Cancom using audio subcarriers on a TV video signal and transponder on Anik D. As of the Fall of '85 there were over 100 downlinks.

DBS - Direct Broadcast by Satellite service. Telesat has plans to implement such a service probably using the replacement Anik C and D satellites to be launched in 1990.

VSAT - Very small aperture terminals. Small, low cost earth stations ranging in size from 1.2 m to 2.4 m. The associated reduction in cost means that requirements in low density multipoint situations are now cost effective over satellite.

Electronic Mail/Teleconferencing/Videotex - Very loose definitions of messaging systems using telecommunications links. Electronic mail is generally a point-to-point service for alphanumeric messages. Teleconferencing refers to an interactive messaging system between a number of stations. Participants can "join" a conference by signing on to the system and passing messages to and from other participants in pseudo real time. Videotex is an interactive system with the addition of graphics. Other names for this service are Telidon or Viewdata.

Slow Scan Video - A TV frame that is transmitted in non real time. i.e. a non moving TV image.

Vertical Blanking Interval - The time space between TV picture frames to allow the electron beam in the CRT to retrace from the bottom of the tube to the top or start of the trace. This bandwidth is normally wasted but systems are available that can place data or voice in this space. The drawback is that there must always be a Television signal present.

III. CONSTRAINTS

There are a number of constraints that face providers of Telecommunications services. Regulatory agencies, mentioned in the first paragraph, are of course primary. Keeping track of decisions in all jurisdictions across Canada is a major task, and the job of assessing the Provincial/Federal (or CRTC versus the PUB) dichotomy is almost impossible. Since this aspect is so dynamic it would be of little use to address it in a report of this nature. We have therefore restricted our assessment of constraints to geographic and technical.

A. Geographic

There are no panaceas to the problem of communications in the North. Widely dispersed population centres with relatively low concentrations at each centre make the provision of services expensive.

Point-to-point terrestrial links with sufficient bandwidth to carry a wide range of services are only cost effective between major population centres. There is also a limit to the branch growth from these back-bone communications links.
Even if one were to subsidize and justify the cost of a fibre optic backbone link to service the major centres, the cost of the local loops would be very high.

Broadcast-type distribution using satellites or radio solve the problem of the need for a backbone network, but still leave the question of local loops (or distribution). aThere are some constraints in the use of satellites in the far North because of low look angles, but this is not too serious.

B. Technical

The primary technical constraint is the bandwidth of the link. Providing multiple services in "real time" requires increasing bandwidths. To understand the relationship the following are rough estimates of the bit rates required for a selection of real-time functions. Bit rate or the number of bits per second is directly related to the bandwidth required:

(Kilobits per second)

Telephone	20 - 56
Sound broadcasting (low fidelity)	50 - 200
Sound broadcasing (high fidelity)	200 - 800
Television broadcast	40,000-92,500
On-line computer access	.1 - 10
Man-computer dialogue	
with alphanumerics	2.4 - 10
with graphics	2.4 - 56
with slow scan TV	4 - 100
with moving TV	40,000 - 92,500

B. Technical (Continued)

From this short list, it is obvious that providing multiple services by satellite or radio (broadcast-types) will be restricted by the bandwidth available. This translates into channels or transponders on a satellite or spectrum for radio systems.

For terrestrial links the same restrictions apply although later technologies such as fibre optic transmission lines solve this to a great extent. Local loops must be coaxial cable or fibre optics to overcome these restrictions. Since the majority of local telephone loops are copper; there is a limit on the number of services that can be provided unless there is also a cable television system.

III SERVICES

Taking into account the constraints mentioned above and the glossary of terms and services we can look at realistic options for services in four main areas.

A. Education

Educational services through Telecommunications have been available for some time, ranging from the early experiments in British Columbia in 1977 using the Hermes satellite to the use of Telidon imaging by the University of Calgary in the early 1980s. These experiments were spurred by the success of the British Open University concept of "off campus" education.

At the present time the Knowledge Network in BC serves almost 200 communities with over 12,000 students. ACCESS Alberta while not an interactive educational service in the purest sense of the word assists communities to obtain Television services by satellite through a system of grants to assist in purchasing ground stations. To date, 110 grants have been approved, more than half of which are in the north and a large percentage in the south east of the province. ACCESS in conjunction with Grant McEwan College and the Alberta Vocational Institute uses landlines to provide educational teleconferencing services to various part of the province.

Other, less complex ways, of distributing educational course materials such as on videotape do not have the immediacy of teleconferencing but do solve the problem of distributing the material to a large distributed population at a modest cost. These could also be augmented by voice conferencing at pre-arranged times although there was some dissatisfaction expressed with the voice component during a University of Saskatchewan trial using satellite distribution and landline voice conferencing in 1984.

B. Business

In the past, businesses of the same type have tended to cluster together in a single geographic location - whether the reasons for this are for efficiency or self comfort is open to question. This clustering has also attracted companies to service the particular business sector. Among these are the information providers.

All businesses need information, whether for the ongoing operations (commodity prices, new sources of supplies, etc.) or for expansion (new markets, developments in the industry, etc.).

Certain types of businesses, such as agriculture, cannot cluster together, and have to obtain their information "at a distance". The use of home computers by farmers to access on-line agricultural data bases has increased dramatically in the last few years.

This demand on the Telecommunications system has highlighted the fact that the existing POTS (plain old telephone system) is generally not equipped to handle data communications. Even in urban areas, it is only fairly recently that PABXs have handled voice and data on a relatively equal basis. This has caused such a demand for single line service into "remote" areas that it is a major headache for telephone companies.

This is one area where the broadcast characteristic of satellites offers at least a partial solution. ANIKAST 100 is a service offered by Telesat that can broadcast database "update" information from a central source to a number of small ground stations. These ground stations are only 1.2 metres in diameter and are equipped with a controller/interface that will connect directly to a small computer. The cost of these terminals are under $6,000 and are easy to install and align. Monthly costs are of course variable with number of users but as an example: a 600 b.p.s. network with 50 earth stations would cost $93 per month per user[2]. In the near future is ANIKAST 200, a similar two-way service.

Mobile communications is used to provide communications to/from non-fixed locations. In remote areas it is also used to augment or compensate for the lack of landline communications. Subscriber radio is a special form that is designed to fill the gap between a remote location and the telephone system terminal. Radio coverage over wide areas is very difficult and expensive to achieve. While the problem of spectrum congestion is not as extreme in the north, there is still some problem with the "optimum" frequency allocations.

The proposed MSAT will not be available until 1988 or 1990 at the earliest and while it should be a component of a long term plan it must be discounted in the short term.

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2 Telesat Report, Vol 1 No. 1, February, 1986

C. Entertainment

Television

Most of the recent concerns with regard to entertainment in the north centre around "scrambling". Let it be stated unequivocally that most of the major satellite services will be scrambled by the end of 1986. Cost-effective decoders that do not degrade picture quality are now available. However, it has been hypothesized that "free" special interest services will fill the gaps left by the scrambled pay channels. What form these niche channels will take is of course open to question.

The Cancom service was an important step in providing television service to remote areas and the Order in Council (see Glossary) that allows municipalities to capitalize and charge for a re-transmit operation should solve most of the problems faced by Manning ~~Coronation~~, Alberta when the town attempted to implement such a system in ~~1983~~.[3] Telesat has proposed a broadcast consortium to the 1970s provide a television package using Ku band (14/12 GHz) that would, with the same type terminals as ANIKAST 100, be provided directly to households; however the status of the proposal is uncertain.

Radio

ACCESS Alberta rents a full transponder to distribute Television FM stereo with ~~and FM stereo~~ to existing TVROs across the province. The CBC also uses low level sub-carriers on certain television channels which have a constant uplink source to carry FM stereo. To avoid the necessity for having a constant source, the CBC also uses a SCPC signal at the low end of the transponder to carry radio. The two channels (Audio 4 and 5) carry signals primarily to the north.

D. Health and Safety

The problem of providing adequate health and safety facilities is one of scarce resources - both human and technical. It is simply not feasible to provide sophisticated medical and safety systems over a widely distributed area. Coordinating resources on the other hand is very difficult because of the distances involved.

Optimizing resources can be assisted by the judicial use of telecommunications. Human and technical resources can be concentrated in the larger population centres provided that the degree of information provided from the outlying areas is adequate to make decisions.

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3 Communications in the 1980s, T. McPhail and F. Hamilton, University of Calgary Press, 1985.

Wide area radio nets may be adequate for voice and (some) data coordination but lack bandwidth and reliability to serve the complete purpose. A major disaster (widespread forest fire or industrial catastrophe) requires that a central control point be in instant and constant communications with a large number of locations. Up to date, accurate information is essential in marshalling and allocating resources. Two way data communications such as is available on ANIKAST 200 will serve the purpose very well, and is not subject to geographical limitations.

Slow scan video can also be used over these data links to provide information from medical scanners operated by paramedical personnel at remote locations to central medical facilities manned by medical specialists. Logical decisions, based on accurate and complete information, can be made - whether or not to evacuate in marginal weather conditions for example.

The technology is available, but it needs a coordinated strategic plan to implement such systems.